

1989

Grum

Drill Logs

89-G-22

to 89-G-35

014992

89-G-22

CURRAGH RESOURCES INC.

DIAMOND DRILL CORE LOG

Hole Number: 896-22

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,905,344.832 N

6,636.87N

592,293.533 E

2,989.47E

Grid Co-ords: 82W / 12+50N

Elevation: 1302.430

All symmetry determinations looking

Total Depth: 479 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° VERTICAL

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: Drilled through ore

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Hole Cemented: No Steel down Hole: No

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>NW</u>	<u>0</u>	<u>24 feet</u>	
<u>NQ</u>	<u>24</u>	<u>479 feet</u>	

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 9/89 Completed: Aug 12/89

DDH 896-22  
2 8

Diamond Drill Core Log Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

Code	Drillhole	Elevation				Northing				Easting				Units (feet/metres)		R.F.E	
		1	2	8	10	16	17	24	25	32	34	39	41	42			
T																	

FEET

Code	Drillhole	Depth				Zenith Angle	True Azimuth	Comments					
		1	2	8	10	14	22		26	28	32	34	56
R	896-1221					100	-1910.0	10.0	AT COLLAR				
R	896-1221					11630	-1871.0	11315.0	SIPIERIRIYI ISIWINI				
R	896-1221					13130	-1841.0	11215.0	SIPIERIRIYI ISIWINI				
R						14630	-1831.0	11161.0	SIPIERIRIYI ISIWINI				
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Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions										
		1	2	8	10	14	22	26	28	32	34	56
		CHAIN EXT. AT 114101 FEET										

896-22 QUIK LOG

0-32	Overburden
32-95.5	5B7D / 5D0
95.5-104.0	5B2 (5D0)
104.0-127.0	5D0 / 5C7
127.0-156	5A1 Gauge # 3A
156-178	5D4
178-196	Gauge - 4A
196-220	4D5 ✓
220-245	3G
245-252	5D
252-269	5B2
269-314	5A19
314-318	4E4 ✓
318-331	5D4
331-352	3G
352-362	4D4 ✓
362-371	5D4
371-404.5	3G
404.5-417	4A4 ✓
417-435	5A1
435-472	4A0 ✓
472-477.5	3G

possible bankruptcy break.?!?

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Lithologic Log

Code	From			To			Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35					
	10	0		214	0					1		#			TRUNCATED NO RECOVERY	
				7	3											
	214	0		132	0					2		#			O/B 16AB Fragments	
				9	8										Variably sized, 10AB O/B boulder fragments & pebbles.	
															largest acid piece 4 cm $\phi$ .	
															1.3' acid.	
	312	0		195	7					3		1510			± minor	
				29	2										Mud soft, light pale green, dominantly PS2 foliated,	
															also some chloritic phylite. S <sub>2</sub> surfaces shiny green-grey	
															contains abundant thin qtz-calcite bands & laminae	
															which locally define lithons. Lithons Pre-D <sub>2</sub> qtz	
															veins? minor dolomite within qtz-calcite bands - increases	
															down interval, qtz + calcite in fill local lake thin	
															fractures.	
															70.2 - 35.0 $\bar{v}$ broken, 2.1' rec'd.	
															35.0 - 50.7 $\bar{v}$ broken, very good.	
															50.7 - 57.6 $\bar{v}$ broken, local minor thin incipient surge	
															intervals // to S <sub>2</sub> , 3.7' rec'd.	
															57.6 - 62.7 $\bar{v}$ broken, very good	
															62.7 - 69.0 $\bar{v}$ broken, local minor thin incipient surge	
															intervals // to S <sub>2</sub> , 4.3' rec'd.	
															69.0 - 95.7 $\bar{v}$ broken, 2.5' core loss.	

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DDH B.9.G.22  
2 8

Date: SEPT 16/89 Logged By: CUR

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30 34 35		14	15K10	(SDO) 70:30 Mixed unit - dominantly unit is sand-soft, black, CS <sub>2</sub> foliated carbonaceous phyllite. S <sub>2</sub> surfaces carbon black. Abundant thin lithons defined by Qtz + cc. Interbedded w this unit in intervals ranging from 2 - 10 cm is pale green + white striped, sand-soft, calcareous chloritic phyllite. Musings // to S <sub>1</sub> and isoclinally folded - defines several phase 2 fold hinges. SD intervals are likely same stratigraphic interval - drillhole intersected "M" region. Core in bucket, very good.
	110 12 11	117 17 0 38 7		15	15D10	±4 (SCO±) 90:10 Dominant unit is pale green, sand-soft, calcareous/dolomitic dominantly PS <sub>2</sub> foliated, chloritic phyllite. S <sub>2</sub> surfaces shiny green-grey. Contains abundant thin Qtz + cc + dol bands and laminae aligned // to S <sub>2</sub> . Locally defines thin lithons. Bottom 3.0' against fault altered - contains abundant interstitial dolomite. 116.0 → 117.0 unit exhibits relict diagenetic texture. Unit is clotted - defined by green chl clots elongate // to S <sub>2</sub> within this interval is abundant matrix dolomite + calcite. Musings w SD are gradational over 2-5 cm. TOI → 106.3 v broken I gauge + bra, only 2.0' resid. 106.3 - 113.0 v broken 7.1' resid. 113.0 - FOI in broken, local thin minor incipient gouge intervals // to S <sub>2</sub> , very good.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	1127	0	11512	5					16	15A6	Bxa + Gouge
			46	5							$\bar{v}$ soft, black, carbonaceous, mineralaceous gouge and breccia.
											Core is blocky mud + breccia fragments. S <sub>2</sub> fabric still visible within gouge + bxa. Margins of gouge not rec'd. Fractures within breccia are steep, generally $\angle 20^\circ$ to core axis.
											FAULT IS LIKELY STEEPLY DIPPING.
											Core is gouge + rubble - 16.5' rec'd. - A SIGNIFICANT FAULT!
											Bottom 10.0' of gouge + bxa contains local fragments containing thin gtz + py bands - approaches 4A lithology.
	11512	5	11519	0					17	15C14	\$ Bxa (4C0 Bxa) 95.5
			48	5							creamy tan - green, very soft dominately P <sub>2</sub> foliated, brecciated, altered chloritic / dolomitic phyllite. S <sub>2</sub> surfaces dull white-tan w "talouse" coatings. local bright green "specks" of "fuchsite" on fracture surfaces
											154.0 $\rightarrow$ 155.0 redrilled, small, $\bar{v}$ hard, psitic quartz fragments. largest fragment 2cm $\phi$ , only 0.5' of 4C rec'd. likely a highly broken 4C breccia clast within fault zone.
											702 $\rightarrow$ 154.0 blocky cream - tan gouge. At 154.0 is 2" interval of 5A - black carbonaceous gouge. 0.5' rec'd.
											154.0 $\rightarrow$ 156.0 rubble - bxa fragments, 2.0' spread out rec'd.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											156 → FOI → broken + brecciated, 2.2' rec'd.
	11519	0	11613	5			18		1410	± 5 Bxa	Small, hard, redrilled pyritic quartzite fragments. Largest fragment 2 cm φ. No visible grade. May be broken + fractured east of 40 meters fault zone. 1.5' spread out rec'd. Core is rubble.
			49	8							
	11613	5	11713	0			19		1514	\$ I Bxa	Mod soft, light cream-tan-green, altered dolomitic metabasite. Contains local minor bright green "richite" spots. S <sub>2</sub> surfaces dull cream-tan. Bottom 5.0' of interval highly fractured and brecciated. Within this bxa interval is local minor angular pyritic quartzite clasts up to 3 cm φ. TOI → 164.0 rubble, rec'd etc. 164.0 → FOI in broken, rec'd, 4" gauge interval at 167.5. Gauge X-cuts S <sub>2</sub> - 15-20° to core axis. Fractures in bxa trend 15-30° to core axis.
			52	7							
	11713	0	11718	2			110		1514	@ \$ Bxa (5A6 Gauge) (40±5 Bxa) 50:40:10	Dominant unit is mod soft, highly fractured, light cream-tan altered dolomitic/metabasitic chloritic phyllite breccia. S <sub>2</sub> disrupted + displaced along abundant like fractures. Within breccia are local angular clasts of highly
			54	3							

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Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20	22 24	26 28	30	34	35			
											fractured, slightly carbonaceous pyritic quartzite. 4C clasts contain sph in thin fractures.
											TOI → 175.6 is soft carbonaceous phyllite mud surge
											marginal not rec'd 0.6' rec'd. 176.8 → 177.0 also carbonaceous
											mud surge - 3.0" rec'd.
											177.0 → 177.6 is v hard, highly fractured and brecciated
											slightly argillite, barren g'te. Fine P <sub>g</sub> occurs in filling
											abundant thin fractures. May be highly fractured g'te vein?
											177.6 → EOI is highly fractured, altered, dolomitic/ankeritic/
											chlorite phyllite. P <sub>g</sub> laminated. Contains local minor
											bright green krichite spots.
											TOI → 175.6 surge 0.6' rec'd
											175.6 → v broken & brecciated, local minor surge 2.5' rec'd.
	117182		118118				111		14A10		Bxa.
			554								v hard, highly fractured and broken, ribbon banded carbonaceous
											quartzite. Dominantly P <sub>g</sub> foliated. S <sub>2</sub> reaction black, strongly
											marks fingers. Unit locally waxy along fractures. Ribbon
											banding is thin, diffuse, defined by g'te + sph + lesser
											py. Sph extensively re-mobilized into thin fractures
											Est Pb+Zn 40% - dominantly sph. g'te-sulphide banding only
											10% of unit volume.
											Cone is rubble. 4.4' rec'd.

Code	From			To			Recov.	No.		Unit	Description
	10	14	16	20	22	24		26	28		
	118	110		119	165			112		G1010161E	(5A6) Gouge (5D4 & Bxa) (4A0 Bxa) 95: 2 1/2 : 2 1/2 Dominant unit is $\bar{v}$ soft, black, noncalcareous, carbonaceous mud gouge. Top 5" of interval is $\bar{v}$ soft, highly fractured, altered dolomitic / chloritic phyllite bxa. Within gouge are local barren high, fractured, angular, carbonaceous gl'te fragments up to 5cm $\phi$ . Fractures in bxa trend 10-20° to core axis. Core is gouge + rubble. 9.1' rec'd. <b>A SIGNIFICANT FAULT!</b>
	119	165		122	103			113		14A14	$\bar{v}$ hard, moderately carbonaceous, ribbon banded gl'te. Ribbon banding diffuse - defined by gl'te + disseminated py + sph Unit (S <sub>2</sub> ) foliated. Banding defines S <sub>2</sub> , generally < 1cm thick. Banding 15-20% of unit volume. Est 7% Pb + Zn 6-7% S <sub>2</sub> surfaces dark grey - only slightly marked fingers. Top 5.0' highly fractured and broken, local incipient gouge along fractures. TOI-207.0 rubble - only 4.2' spread out rec'd. 207.0 - FOI in broken along steep fractures, very good
	122	103		124	144			114		151B1216 ± $\phi$	(5D6 & @) 90:10 Dominant unit is mud soft, S <sub>2</sub> foliated, noncalcareous medium grey, moderately carbonaceous musc phyllite. S <sub>2</sub> surfaces

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											shiny medium grey. Carbon content decreases slightly, gradually moving down interval. Contains local thin gtz dol siltstone laminae + bands - locally define microlithons.
											234.8 -> 236.6 is thin, PS <sub>2</sub> laminated pale tan-green, ankeritic / dolomitic chloritic phyllite. Margins sharp, // to S <sub>2</sub> .
											TOI - 223.7 - broken, local incipient surge and breccia along steep fractures. Recy O.K.
											223.7 - FOI - broken, local incipient surge along steep fractures 20.4' rec'd.
	1214	144	1215	151	B		115	1510	146		± minor ± 9 trace.
											Thin, PS <sub>2</sub> foliated moderately soft, tan-green-grey, noncalcareous altered chloritic phyllite. S <sub>2</sub> surfaces shiny - clotted pale green-grey. Chls are pale green chlorite. Contains local thin tan-orange weathered dol in thin bands // to S <sub>2</sub> . Contains local thin gtz ± fine ps bands which locally define lithons. Likely thin pre D <sub>2</sub> gtz veins. Come in broken along S <sub>2</sub> , Recy good.
	1215	151	B	1216	160		116	1518	162		± minor
											Medium grey, mod - carbonaceous, noncalcareous, locally CS <sub>2</sub> foliated, musc phyllite. S <sub>2</sub> surfaces shiny medium grey - only slightly marked fingers. Contains local microlithons defined by gtz F dol laminations. Qtz ± dol also occur in thin bands // to S <sub>2</sub> . Qtz + Dol (SP) in fill local x-cutting fractures. Core moderately

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Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											broken along S <sub>2</sub> , very good.
	1216	160	1217	170			117		1514	16	Bxa + Gouge (4A0 Bxa) 95:5 Dominant unit is v soft, black, carbonaceous phyllite gouge and breccia. Noncalcareous. Contains local, hard angular, black, pyritic 4A fragments Traces of red-brown sph in 4A clasts. Core is gouge and rubble, 6.1' rec'd
	1217	170	1311	118			118		151A	116	9 + Bxa Black, med-hard, siliceous, carbonaceous, locally med-pyritic phyllite. S <sub>2</sub> surfaces shiny, black and strongly mark fingers. Contains abundant thin Qtz ± py bands and laminations defining S <sub>1</sub> and S <sub>2</sub> . Noncalcareous. No visible grade. Ribbon banding not developed well enough for 4A classification. Est Qtz content 25-30%. Est % Py 5%. S <sub>2</sub> steep - in 20-25° to core axis 291.0 → 303.5 contains abundant incipient gouge and breccia. Fractures tend to be steep - 10-15° to core axis 702 - 297.0 v broken minor incipient gouge and breccia 21.9' rec'd 297.0 - 303.5 rubble, bxa + gouge 6.2' rec'd 303.5 - 309.5 v broken 6.4' spread out rec'd 309.5 - 402 rubble, 1.2' spread out rec'd.

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Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	13111	8	13114	0			119		141A10		Bxa. v hard, highly fractured and broken, black, carbonaceous gztite breccia. Ribbon banding is thin, diffuse, // S <sub>2</sub> , defined by gtz + disseminated fine py + sph. S <sub>2</sub> surfaces carbon black. Est % Py 8-10%. Est % Pt Fe 2-3%. Core v broken 1.8' rec'd.
	13114	0	13118	9			120		141E14		(4A0) (SAL GOUGE) (SCLX) 50:40:8:2. Dominate unit v hard, PS <sub>2</sub> banded, high grade, massive pyritic sulphide. (314.9 → 317.9) Banding defined by local interstitial gtz and local concentration of sph + gal. Est Pt Fe at 4E41 8-10%. Unit is highly fractured and broken. TOT - 314.4 is v soft, white-tan, highly altered metabasite. 314.4 - 314.9 small carbonaceous gtzite fragments, no grade. 317.9 - 318.0 is black v soft flakey carbonaceous gtzite 318.0 - EOT highly fractured and broken, v hard massive carbonaceous gtzite fragments. Fine py in fills fractures. TOT - 315.0 Rubble 1.3' rec'd. 315.0 - 316.5 v broken, 1.5' rec'd. 316.5 - EOT rubble, 2.4' rec'd.

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	131118	9	131219	8			1211		151C1410	<p>4C3 90:10</p> <p>Dominant unit is mud soft cream-white w green tinge, light, altered, dolomitic / carbonitic chloritic phyllite. S<sub>2</sub> surfaces dull cream white - abundant powdery "talouse" coatings. Local bright green "barite" specks elongate    to S<sub>2</sub>. Contains local qtz vein fragments ranging up to 10 cm <math>\phi</math>. Fine py in hills fractures in fragments.</p> <p>323.0 <math>\rightarrow</math> 324.5 is v hard, highly fractured, thin, banded pyritic quartzite. Unit is locally vuggy due to weathering of carbonate out of fractures. Banding generally &lt; 1cm thick,    to S<sub>2</sub>, defined by dominant py, &gt;&gt; spl to qtz. Est Pb+Zn 3-4%. Margins of 4C brecciated. Bands in 4C trend    to core axis.</p> <p>TOE - 322.0 v broken along steep fractures 2.3' rec'd.</p> <p>322.0 - 323.0 rubble, rocky O.K</p> <p>323.0 - 327.0 v broken along abundant steep fractures</p> <p>327.0 - FOE rubble - local small 4C fragments 428.0 - 428.5 = 3.8' spread out rec'd.</p>
	131219	8	131416	6			1212		151B1216	<p>600E + Box (1000 <math>\pm</math> 9) 95:5</p> <p>v soft, fissile, dark grey <math>\rightarrow</math> black, noncalcareous, carbonaceous micc phyllite gauge and breccia. Margins of coarse    to S<sub>2</sub>.</p> <p>332.5 - 333.5 white, pyritic quartz vein fragments - largest piece 2" <math>\phi</math>.</p> <p>342.5 - 343.2 - highly broken a fractured qtz veins fine py</p>

Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
														+ dol in fill fractures. Core is rubble breccia and gorge, 14.4' spread out rec'd. Significant fault?
	13146	6	131510	6			123		151C141	9 @ \$				(5B6 + 4) Dominant unit is med-soft → locally hard, pale green-tan altered metabasite. Contains alternating bands of chl + dol + ank and fine grey Qtz ± fine diss py. Local bright green "fuchsite" specks. Banding defines S <sub>1</sub> and lithons. S <sub>2</sub> dull light patchy green-grey. Top 1.5' of interval is light grey, locally altered, slightly carbonaceous, micaceous, musc. phyllite. S <sub>2</sub> surfaces medium shiny grey. Qtz ± dol ± fine py in fill local thin N-cutting fractures. Core in broken along S <sub>2</sub> , rec'd gravel.
	131510	6	1316R	3			124		141D1314	(5C4 @ \$)				50:50. Interbanded unit of v hard, py + sph + Qtz banded gtzite and light tan-green med-soft altered metabasite. Bands range from 4" to 2.5", margins // to S <sub>2</sub> S <sup>+</sup> in gtzite define several phase 2 fold hinges. Metabasite bands contain local bright green "fuchsite" specks + abundant dark rank. S <sup>+</sup> banding in gtzite 30-40° of unit volume. Est Ph + Zn entire interval 6-8% Interval contains 6 metabasite and 6 high grade gtzite bands.

Code	From		To		Recov.		No.		Unit	Description
	10	14 16	20	22 24	26 28	30	34 35			
										Core slightly broken, very good.
	1316	12 3	1317	10 2 112 8			1215		151C1418	@ I 19 minor Cream - tan - green, mod - soft, P <sub>2</sub> foliated, thin, banded dolomite / calcite, chloritic, altered metabasite. Local small bright green "fuchsite" spots. Contains minor local thin - (generally < 2mm), gtz ± fine py, traces of calc + gal bands // to S <sub>2</sub> . Est % P <sub>2</sub> 3-4%. Est % Pb+Zn 1%. S <sub>2</sub> surfaces dull pale tan-green. Fine py in fills local thin fractures. Core mod - broken, very good
	1317	10 2	1317	12 5 113 5			1216		14A10	Locally highly fractured and highly broken, i hard, CS <sub>2</sub> foliated, black carbonaceous gtzite. Ribbon banding thin, diffuse, poorly developed - defines S <sub>1</sub> + S <sub>2</sub> . Banding generally < 1cm thick defined by py ± gtz - no grade. Fine py in fills local thin fractures. Est % P <sub>2</sub> 8-10%. Est % Pb+Zn 1-2%. Core i broken, 2.4' recd.
	1317	12 5	1317	16 4 114 7			1217		151B16	± 4 t Gouge minor <sup>19</sup> minor (5C48@) 70:30 Dominate unit is mod - soft, CS <sub>2</sub> foliated, light grey, locally silver - grey, noncalcareous, mass phyllite. S <sub>2</sub> surfaces shiny silver grey. 373.5 - 375.0, unit is "bleached" whitish grey with local soft flakey gouge. Unit becomes gradually lighter moving down the interval. Dolomite locally occurs in thin bands // to S <sub>2</sub>

Code	From				To				Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28	30	34	35			
														becoming more abundant near EOI. 376.5 - 378.0, highly broken and fractured, mud soft light tan-green dolomitic /ankeritic altered metabasite. Unit is broken due to steep fractures. Local traces of "richite" in fracture surfaces. Fine py + marcasite? in fill local fractures. TOI - 373.5 is broken, recy 0.5 373.5 - 375.0 rubble + gouge, 0.9' rec'd 375.0 - 376.4 is broken, recy good 376.4 - 378.8 rubble, 2.4' rec'd. 378.8 - EOI is broken, recy good.
	131716	4	131812	7 116 6			1218					151C14	78 @ Buff green-grey, mud soft, thinly laminated, dolomitic, ankeritic, chloritic phyllite. Local minor bright green "richite" specks. Dolomite occurs in thin P <sub>2</sub> bands and in small <sup>local</sup> subrounded cracks (contains local thin pre-D <sub>2</sub> qtz veins. Veins contain local small dark clasts. Core moderately broken, recy good.	
	131812	7 117 5	131815	5 117 5			1219					151B612	± Gouge. Mud soft, highly fractured, locally gaseous, noncarbonaceous, moderately carbonaceous phyllite. Medium to dark grey. 383.7 → EOI is soft, moderately carbonaceous gouge. Margin of gouge not rec'd. TOI → 383.7 is broken, recy good. 383.7 → EOI gouge, 0.5' rec'd.	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	131815	5	131911	5			1310		141L1012		4miser
			119	3							Mud soft, grey-green, altered muscovite phyllite. Contains local thin bands and stringers of Qtz + fine py + minor sph + gal. S <sub>2</sub> surfaces dotted light grey-green micaceous. Est % P <sub>2</sub> 5-6% Est % PbZn 2%.
											Core in broken, recov good.
	13194	5	141010	8			1311		151B1216		±19
			122	2							S <sub>2</sub> foliated, mud soft, medium to dark grey, micaceous, moderately carbonaceous phyllite. Contains local abundant, thin Qtz + diss py + minor Pb + minor sph + gal bands defining S <sub>1</sub> + S <sub>2</sub> . S <sub>1</sub> become more abundant moving down interval. S <sub>2</sub> surfaces medium-dark shiny grey. Est % P <sub>2</sub> 3-4%.
											Core in broken, recov good.
	141010	8	141012	5			1312		141A10		
			122	7							Very hard, black, ribbon banded, carbonaceous quartzite. Banding defines S <sub>1</sub> + S <sub>2</sub> , consists of py + interstitial fine py. Bands 25-30% of unit volume. Bottom 0.1' of 4A is high grade sph + py band. Band II to S <sub>2</sub> . Rest of unit is barren.
											Core in broken, recov o.k.
	141012	5	141116	6			1313		141A14	(4D0) (5C4 @)	45:5:50
			127	0							Highly mixed unit of alternating thick bands (likes folded single bands) of pale tan-green <sup>altered</sup> malachite and very hard

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Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											high grade carbonaceous ribbon banded gtzite. Bands range from 1.5' - 3.5' thick.
											metabasite is med-soft thin, PS <sub>2</sub> foliated. light tan-green dolomitic /ankeritic chloritic phyllite. S <sub>2</sub> surfaces dull olive green contains local small bright green kurosite spots. Margins of metabasite bands sharp // to S <sub>2</sub> .
											4A4 is high grade, ribbon banding generally L 2 cm thick, defines S <sub>2</sub> , consist of glt + py + sph + gal - make up ~ 25% of unit volume. Grade 8-10% dominantly sph. Thin 4" bands against metabasite have carbon "roasted" out.
											FOI → 405.5 is 5C4 # @
											405.5 → 407.7 is 4A4
											407.7 → 409.6 is 5C4 # @
											409.6 → 410.5 is 4A4
											410.5 → 412.9 is 5C4 # @
											412.9 → 416.6 is 4A4 Phase 2 fold hinge defined by S <sup>e</sup> banding at 413.5.
											FOI → 408.0 is broken, recov: O.K.
											408.0 → 410.0 is broken due to steep fracture, recov: O.K.
											410.0 → FOI intact, recov: good.
	1411	166	1413	152			1314		151A11	6	β minor 9 minor.
				1326							Black, carbonaceous, CS <sub>2</sub> foliated, med-soft → locally hard, noncarbonaceous phyllite. Contains abundant thin bands and lithons defined by glt + minor dol + minor fine py. S <sub>2</sub> surfaces are carbon black, strongly mark fingers. Unit locally hard where

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
											gts bands and lithons > 50% of unit volume.
											TOI - 472.0 $\bar{v}$ broken - fissile along S <sub>2</sub> . recy good. local minor
											gouge along thin fractures.
											472.0 - FOI $\bar{v}$ broken, recy good.
											local minor fine py in fills fractures.
	1413	15	2	1415	15	9		1315	141A	10	+ 4 minor + Bxa
											$\bar{v}$ hard, CS <sub>2</sub> banded + foliated, black, ribbon banded
											carbonaceous gtsite S <sub>2</sub> surfaces carbon black - strongly marks
											fingers. Ribbon banding generally thin, 2 cm, defined
											by py, sph + sul + interstitial fine gts. Banding aligned
											along S <sub>1</sub> + S <sub>2</sub> . Banding 15-20% of unit volume.
											Est Pktzn ranges from 2-3% to locally 7-8%.
											Over entire interval - is 5-6%.
											Unit is highly fractured + locally porous along fractures
											due to weathered carbonate?
											TOI - 438.4 $\bar{v}$ broken, recy good
											438.4 - 444.5 rubble + bxa only, 4.1' rec'd - likely
											not a significant fault.
											444.5 - 446.6 $\bar{v}$ broken, recy good.
											446.6 - 449.0 rubble - local bxa'd. 1.2' spread out rec'd.
											449.0 - 451.5 $\bar{v}$ broken, recy O.K.
											451.5 - 453.0 rubble, 1.4' spread out rec'd.
											453.0 - FOI $\bar{v}$ broken, recy O.K.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	141515	9	141611	0			156		151A141	@	(5A169) (4D0) 95:5:TRACE
			1405								Dominant unit is P52 bedded dull olive green-tan, med soft, aligned chloritic / carbonitic / chloritic phyllite. Margins sharp,    to S <sub>2</sub> . S <sub>2</sub> surfaces buff-tan-green. Fine py in hills local thin fractures. Contains local thin tabular bands of med hard, black, carbonaceous, siliceous, phyllite. Contains local thin qtz + minor sph bands aligned    to S <sub>2</sub> . At 456.8 is small, v hard angular "clst" of v hard, light grey gtz. Sph in hills abundant thin fractures.
											TOI → 459.0 in broken, very good. 459.0 → FOI v broken 1.9' spread out rec'd.
	141611	0	141712	3			137		151A1196		Gouge + Brecc.
			1440								Highly broken and fractured, locally gouged, med soft → locally hard, noncarbonaceous, carbonaceous breccia. Contains local minor thin bands and "clasts" of gtz + fine py. Dominant fracture set trends nearly    to core axis. Gouge + breccia present in several intervals. TOI → 466.0 Breccia + Gouge 3.7' rec'd. 466.0 → 470.3 Gouge only 0.6' rec'd. 470.3 → EOI v broken, fractured and brecciated 2.0' rec'd.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	1417	123	1477	195			1318	1510	1418	@ (SAG #) 70:30
			146	2						Mixed interval of dominate buff tan-green altered dolomitic/chloritic phyllite interbedded w mud soft CS <sub>2</sub> foliated, dolomitic, carbonaceous phyllite. Top contact of SD against SA 40°/000 w.r.t. S <sub>2</sub> . SD contains abundant dol + anks? in this buff-tan weathered bands // to S <sub>2</sub> . S <sub>2</sub> surfaces dull buff tan-green. SA contains abundant thin qtz + dol bands + lithons defining both S <sub>1</sub> + S <sub>2</sub> . S <sub>2</sub> surfaces shiny black. Core in problem, very good.
										FOH

ASSAY LOG (SAMPLER'S COPY)

Date SEPT 21 Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
1	10	16	48.25	22-0-26	28-30	32-34	36 W/S TBO 42
	1115 <sup>4</sup> 19 <sup>5</sup> 0	1116 <sup>4</sup> 13 <sup>5</sup> 5	37284		135 <sup>11</sup> 35		14KD ± 5 Bra
	1114 <sup>4</sup> 9 <sup>4</sup> 0	1115 <sup>4</sup> 4 <sup>3</sup> 3	---	---	---		WASTE
	1115 <sup>4</sup> 4 <sup>3</sup> 2	1118 <sup>5</sup> 1 <sup>4</sup> 8	37285		136 <sup>11</sup> 36		14A10 Bra
	1115 <sup>4</sup> 5 <sup>4</sup> 4	1115 <sup>4</sup> 9 <sup>4</sup> 9	---	---	---		WASTE
	1119 <sup>5</sup> 16 <sup>2</sup> 5	1210 <sup>6</sup> 12 <sup>6</sup> 0	37286		155 <sup>10</sup> 128		14A14
	1210 <sup>6</sup> 13 <sup>0</sup> 0	1210 <sup>6</sup> 17 <sup>6</sup> 6	37287		150 <sup>05</sup> 15		14A14
	1210 <sup>6</sup> 17 <sup>0</sup> 0	1211 <sup>6</sup> 4 <sup>3</sup> 3	37288		141 <sup>12</sup> 41		14A14
	1211 <sup>6</sup> 11 <sup>1</sup> 1	1211 <sup>6</sup> 16 <sup>5</sup> 9	37289		150 <sup>15</sup> 50		14A14
	1211 <sup>6</sup> 16 <sup>1</sup> 1	1212 <sup>6</sup> 7 <sup>6</sup> 5	37290		142 <sup>13</sup> 42		14A14
	1116 <sup>6</sup> 7 <sup>1</sup> 1	1119 <sup>6</sup> 5 <sup>0</sup> 0	---	---	---		WASTE
	1311 <sup>9</sup> 11 <sup>8</sup> 0	1311 <sup>9</sup> 17 <sup>7</sup> 6	37291		122 <sup>05</sup> 115		14A10 Bra
	1311 <sup>9</sup> 14 <sup>0</sup> 0	1311 <sup>9</sup> 18 <sup>2</sup> 8	37292		149 <sup>15</sup> 49		14E411 (4A0) (5A6 GOUGE) (CC4*) 50:40:8:2
	1311 <sup>9</sup> 18 <sup>9</sup> 9	1312 <sup>9</sup> 12 <sup>4</sup> 4	37293		140 <sup>11</sup> 37		5IC4@1\$
	1312 <sup>9</sup> 12 <sup>9</sup> 9	1312 <sup>9</sup> 14 <sup>9</sup> 9	37294		118 <sup>05</sup> 18		14IC3
	1312 <sup>9</sup> 14 <sup>7</sup> 7	1312 <sup>9</sup> 19 <sup>8</sup> 8	37295		151 <sup>14</sup> 47		5IC4@1\$
	1110 <sup>10</sup> 10 <sup>5</sup> 5	1110 <sup>10</sup> 16 <sup>9</sup> 9	---	---	---		WASTE
	1315 <sup>10</sup> 6 <sup>9</sup> 6	1315 <sup>10</sup> 16 <sup>5</sup> 0	37296		154 <sup>16</sup> 54		14D14 3 (5C4) 70:30
	1315 <sup>10</sup> 16 <sup>0</sup> 0	1315 <sup>10</sup> 19 <sup>5</sup> 5	37297		135 <sup>14</sup> 35		14D14 3 (5C4) 60:40
	1315 <sup>10</sup> 19 <sup>5</sup> 5	1316 <sup>10</sup> 22 <sup>3</sup> 3	37298		28 <sup>10</sup> 25		15IC4 (4D43) 70:30
	1316 <sup>10</sup> 22 <sup>3</sup> 3	1317 <sup>10</sup> 20 <sup>2</sup> 2	37299		179 <sup>21</sup> 69		5IC4@ ± 19 minor
	1317 <sup>10</sup> 20 <sup>2</sup> 2	1317 <sup>10</sup> 22 <sup>5</sup> 5	37300		123 <sup>07</sup> 23		14A9
	1111 <sup>11</sup> 13 <sup>5</sup> 5	1112 <sup>11</sup> 2 <sup>2</sup> 2	---	---	---		WASTE
	1410 <sup>12</sup> 8 <sup>8</sup> 8	1410 <sup>12</sup> 2 <sup>5</sup> 5	37301		117 <sup>05</sup> 17		14A10
	1410 <sup>12</sup> 2 <sup>5</sup> 5	1410 <sup>12</sup> 15 <sup>0</sup> 0	37302		125 <sup>09</sup> 25		5IC4@
	1410 <sup>12</sup> 15 <sup>0</sup> 0	1410 <sup>12</sup> 17 <sup>3</sup> 3	37303		128 <sup>09</sup> 28		14A14
	1410 <sup>12</sup> 17 <sup>3</sup> 3	1412 <sup>13</sup> 15 <sup>0</sup> 0	37304		152 <sup>14</sup> 52		5IC4@
	1411 <sup>13</sup> 0 <sup>0</sup> 0	1411 <sup>13</sup> 16 <sup>6</sup> 6	37305		136 <sup>11</sup> 36		14A11
	1112 <sup>12</sup> 7 <sup>0</sup> 0	1113 <sup>12</sup> 2 <sup>6</sup> 6	---	---	---		WASTE
	1413 <sup>13</sup> 15 <sup>2</sup> 2	1413 <sup>13</sup> 18 <sup>3</sup> 3	37306		153 <sup>10</sup> 40		14A10 ± 4 minor
	1414 <sup>14</sup> 10 <sup>5</sup> 5	1413 <sup>13</sup> 14 <sup>2</sup> 2	37307		137 <sup>11</sup> 37		14A10 ± 4 minor
	1414 <sup>14</sup> 14 <sup>2</sup> 2	1414 <sup>14</sup> 19 <sup>2</sup> 2	37308		150 <sup>12</sup> 48		14AD ± 4 minor
	1414 <sup>14</sup> 19 <sup>2</sup> 2	1413 <sup>13</sup> 12 <sup>7</sup> 7	37309		135 <sup>11</sup> 35		14A10 ± 4 minor
	1415 <sup>15</sup> 12 <sup>7</sup> 7	1415 <sup>15</sup> 15 <sup>9</sup> 9	37310		132 <sup>10</sup> 32		14A10 ± 4 minor
	1113 <sup>13</sup> 9 <sup>0</sup> 0	1114 <sup>13</sup> 6 <sup>2</sup> 2	---	---	---		WASTE

FOA

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER TJK / ADR

DRILLHOLE NO. 89-G-22 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE Aug 16 1989  
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**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
32	32	2		0			6		D							0			
35	3	2.1		0			6		D								0		
39.5	4.5	4.5		0			6		E								1		
45	5.5	4.1		0			8		E								0		
49	4	3.5		0			7		F								0		
54.5	5.5	3.2		0.5			7		F								0		
59	4.5	3.6		0			7		F								2		
64	5	5		0.9			9		F								3		
69	5	3.9		0			7		E								2		
73.5	4.5	4.5		0			7		F								2		
79	5.5	5.5		0			8		F								2		
84	5	5		1			9		F								1		
89	5	3.65		0.85			8		F								0		
92	3	2.75		0			7		F								1		
97	5	4.6		0.7			7		E								0		
101	4	4		0			7		E								1		
106	5	2.85		0			6		E								0		
111	5	4.85		0			6		D								1		
113	2	1.95		0			6		D								0		
118	5	5		2.15			10		E								0		
122.5	4.5	4.5		0.6			7		D								0		
127	4.5	2.2		0			7		D								1		
132	5	0.6		0			2		F								0		
135	3	3.0		0			6		E								1		
138	3	2.2		0			1		F								0		
142	4	2.6		0			2		F								0		
144	2	2		0			2		F								0		
145	1	1		0			3		F								0		

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER TJK/ADR

DRILLHOLE NO. 89-622 COORDINATES: N \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE Aug. 16 1989  
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 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
152	7	1.4		0			3		F							0			
154	2	1.55		0			5		F								0		
156	2	1.3		0			5		F								0		
159.5	3.5	2.9		0			6		F								0		
160.5	1	0.7		0			5		F								0		
163.5	3	1.1		0			5		F								0		
164	0.5	0.5		0			5		F								0		
168	4	2.4		1.05			8		F								0		
173	5	5		1.2			9		F								0		
178	5	3.3		0			3		F								0		
182	4	4		0			5		F								0		
187	5	1.5		0			6		F								0		
192	5	4.1		0			1		F								0		
197	5	3.2		0			1		F								0		
202	5	2.4		0			6		F								0		
207	5	1.15		0			5		F								0		
210	3	3		0.35			7		F								1		
215	5	5		0.35			7		F								2		
220	5	4.7		0.4			7		F								2		
225.5	5.5	5.3		0			6		F								2		
230	4.5	3		0			6		F								0		
235	5	3.7		0			6		F								0		
240	5	5		0.85			6		F								3		
245	5	5		0			7		F								1		
250	5	5		0.5			7		F								3		
253.5	5.5	5.2		1.95			9		F								1		
261	5.5	5		0.5			7		F								2		
266	5	4		0			7		F								0		
271.5	5.5	4.3		0			2		F								0		

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER ADR/TLK

DRILLHOLE NO. 89-622 COORDINATES: N \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE Aug 16 1989  
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**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY  
**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
277	5.5	1.8		0			1		F							0	
282	5	4		0.35			7		F							0	
284	2	2		0.7			7		F							1	
284	4	4		0			7		F							1	
292	4	4		0			7		F							1	
297	5	4.2		0.35			7		F							2	
300	3	2.4		0			6		F							1	
303.5	3.5	2.8		0			1		F							0	
305.5	2	2		0			6		F							2	
309.5	4	2.4		0			6		F							0	
312.5	3	2		0			5		F							0	
314	1.5	0.9		0			6		F							0	
316	2	2		0.5			6		F							2	
318	2	2		0			6		F							1	
320	2	0.9		0			5		F							0	
323	3	3		0			6		F							2	
327.5	4.5	4.1		0.4			6		F							1	
328.5	1	1		0			6		F							0	
332	3.5	2.9		0			6		D							0	
337	5	3.1		0			6		E							2	
340.5	3.5	3.5		0			7		E							0	
341.5	1	0.7		0			3		F							0	
342.5	1.0	1.1		0			2		F							0	
346.5	4.0	2.0		0			1		F							0	
352	5.5	5.1		.9			7		E							2	
357	5.0	4.4		2.9			10		F							0	
362	5.0	5.0		3.15			10		E							0	
367	5.0	4.8		2.5			10		E							0	

Fig. 1. Typical rock mechanics core log.



Code	From		To (feet)		Feature	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		Description
	10	14	16	20			Dip	Direct.	Dip	Direct.	Dip	Direct.	
				4150	AS12-				T	□	510		S <sub>2</sub> defined by comp banding.
				740	AS12-				T	□	610		" " " "
				890	CIS12S				45	345	76		" " " "
				11175	CIS12S				57	350	55		S <sub>2</sub> defined by fine altered musc laminae
				11185	AS12-				T	□	615		S <sub>2</sub> is crenulated here, comp banding present.
				11690	AS12-				T	□	23		S <sub>2</sub> defined by altered musc laminations.
				121105	AS12-				T	□	610		S <sub>2</sub> defined by Py & Sph banding.
				121245	AS13-				<sup>S<sub>3</sub></sup> 71	□	T		S <sub>3</sub> defined by silvery micaceous laminations.
				124150	CIS12S				35	263	70		laminations of fine altered musc pres
				126110	CIS12S				22	288	52		micaceous films present.
				12880	AS12-				T	□	36		S <sub>2</sub> defined by Py & Sph banding
				131055	AS12-				T	□	42		S <sub>2</sub> defined by thin micaceous laminae
				13310	AS12-				T	□	31		S <sub>2</sub> defined by altered musc laminations comp banding present.
				135115	AS12-				T	□	63		" " " "
				136160	AS12-				T	□	43		" " " "
				13925	AS13-				<sup>S<sub>3</sub></sup> 78	□	T		S <sub>3</sub> defined by thin silvery micaceous laminations.
				14070	AS12-				T	□	68		S <sub>2</sub> defined by Py & Sph banding
				14245	CIS12S				36	345	60		thin micaceous laminations present.
				14330	CIS12S				34	010	64		" " " "
				14590	AS12-				T	□	63		S <sub>2</sub> defined by thin altered musc laminations.
				14750	CIS12S				32	289	78		thin micaceous laminations present.
									+ 1E01H	T			

89-G-23

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 894-23

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,905,325.941 N

6,586.13 N

592,344.874 E

3,009.99 E

Grid Co-ords: 80W / 13 N

Elevation: 1301.934

All symmetry determinations looking

Total Depth: 349 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -80° to NE

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: drilled through ore

Logged by: L.C. Pigge

Date(s) Logged: Sept 12 -

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
------	-----------	----	------------------------------------

Hole Cemented: No Steel down Hole: No

<u>NW</u>	<u>0</u>	<u>40 feet</u>
<u>NQ</u>	<u>40</u>	<u>349 feet</u>

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 12/89 Completed: Aug 14/89

DDH 8,9,6,-,2,3,  
2 8

Diamond Drill Core Log

Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

Code	Drillhole	Elevation	Northing	Easting	Units (feet/metres)	R.F.E.
I	2 8 10 16 17	24 25	32 34	39 41 42		
T						

FEET

Code	Drillhole	Depth	Zenith Angle	True Azimuth	Comments
I	2 8 10 14 22 26 28 32 34				56
R	8916-1213	100	-1810.0	142.0	A.T. COLLAR
R		118120	-1717.0	156.0	SIPIERIKIYI ISIWI
R		131320	-1751.5	161.0	SIPIERIKIYI ISIWI
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Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions
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 FEET

CURRAGH RESOURCES INC.  
 Lithologic Log

Page 3

Date: Sept 12/83 Logged By: LCP

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
		10 0		14 0				11	#1	TRICONED - No RECOVERY
				12 2						
		14 0		14 0				12	51D141	\$ MINOR (5A61) 95:05 WEATHERED
				14 0						Major unit is soft, PS2-foliated, pale cream, muscovite phyllite. S2 surfaces are silvery cream. Contains minor dolomite. Marginal contacts are sharp parallel S1. Fractures and edges of S2 surface display orange-brown weathering stain. Minor bright green "fuchsite" streaks.
										Contains thin interbeds of very dark grey, PS2-foliated, noncalcareous, moderately hard phyllite. S2 surfaces are shiny black and only slightly mark fingers. Breaks into angular chunks rather than being poken chippy and fissile. Typically S2 surfaces have patchy rust brown weathering spotting.
										Only 3.5 feet core recovered. Very broken and rubble. Looks like reground core at TOT - possibly residue from trimming.
		14 0		15 0				13	51A161	±1 ±\$ MINOR WEATHERED
				15 5						Dark grey, PS2-foliated, noncalcareous phyllite. S2 surfaces are shiny black. Hardness ranges from soft to hard, depending on the interval tested. Locally contains thin bedded, slightly dolomitic, pale grey to grey siltstone bands to laminae. Fractures have solid orange brown weathering surface coating. S2 surfaces have patchy orange-brown weathering coat.
										Core very broken and rubble. No gouge. About 3.5 feet core recovered. Softer intervals are more poken chippy.
		15 0		17 0				14	51A161	±1
				21 3						Very dark grey, PS2-foliated, noncalcareous phyllite. Interbedded soft and hard intervals on a scale of 10's of cm. S2 surfaces are shiny black and slightly mark the fingers. Softer intervals break with fissile poken chippy aspect and more siliceous intervals break with

Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20	22 24	26 28	30	34	35			
											chunky, angular fragments. Contains thin glass siltstone bands locally. Core very broken, paker chippy, rubblely. Difficult to determine recovery because core extensively spread out in box. TOI-62 recovery seems reasonable // 62-67 only 1.5 feet core // 67-69 has 1.5 feet spread out core // 69-EOI recovery reasonable - core very spread out. Some minor 10cm gouges present locally.
	17100		17120				15		151C1417	±	Moderately soft, PS2-foliated, pale grey, muscovite-chlorite-salinite phyllite. S2 surfaces are silvery w/ patchy medium green chlorite and bright green "fuchsite" spots. Chlorite forms thin laminae parallel S2 in a grey, calcareous-rich matrix. Unit weathers pale tan. Calcite infills thin scuttling fractures. Core very broken and rubblely. Recovery seems OK - core is very spread out. No faults.
	17120		110100				16		151B1612	± \$ MINOR (4A0) MINOR	Moderately soft to soft, PS2-foliated, dark grey, noncalcareous phyllite. S2 surfaces are steel grey and slightly mark the fingers. Minor scattered pyritic porphyroblasts. Contains minor pale grey glass siltstone bands which locally contains minor, beaded salinite. Bottom 1 foot of unit has a few interbeds (5cm or less) of ribbon-banded, carbonaceous quartzite. (4A). Astele contains reddish splenite in thin pale grey to white ribbons. This would be transitional to next unit. Core very broken, rubblely, paker chippy with some local gouges. TOI-73 recovery OK // 73-77 has 1.5 feet core // 77-81-82 has no core // 82-87 has 1.8 feet core // 87-92 recovery OK // 92-96 has 2 feet core // 96-EOI recovery OK.
	110100		111135				17		141A101	± GOUGE [5A169 ± GOUGE]	Hard, black to dark grey, noncalcareous, PS2-foliated, slightly pyritic gneiss. S2

Code	From		To		Recov.			No.		Unit	Description
	10	14	16	20	22	24	26	28	30		
											<p>surfaces are shiny black but only slightly mark fingers. Ribbon banding defined by thin off-white pt-sphalerite-pyrite bands in siliceous, fine-grained, gray matrix. Sphalerite &gt; pyrite. Ribbons parallel S1 and deformed by S2. Sulphides also concentrated in S2 pressure solution stripes. Carbonaceous folia have micaceous aspect and are locally moderately soft. Get fine-grained pyrite aggregates in fractures infillings. Only 2-3% (Pb+Zn) Total sulphides about 5%.</p> <p>TOI-101.5 Very broken and rubbley - recovery seems OK // 101.5-103.0 mud gauge w/ good recovery. Contains pieces of carbonaceous ptile. Upper contact is tectonic bxa w/ orientations 25/330 wrt S2 // 103-105.5 mod. broken w/ good recovery // 105.5-EOI Very broken &amp; rubbley w/ gauges. Gauges along steep features at shallow angle to core axis - about 25°</p>
	11113	5	111310	0					18	151A161	<p>± § ± GAUGE [5B62]</p> <p>Soft, P2-foliated, dark grey to black, noncalcareous phyllite. S2 surfaces are shiny black and moderately mark fingers. Very locally contains pale grey ptase siltstone bands which are slightly dolomitic. Thickness of siltstone-rich intervals ranges up to 5cm. Differentiated from last unit because soft</p> <p>TOI-117 Mod. broken, mod. pale chippy w/ good recovery // 117-121 mud gauge w/ good recovery. Upper contact parallel S2. Lower contact local in rubble // 121-123.5 very broken &amp; pale chippy - recovery OK // 123.5-130 Very broken and rubbley w/ gauges. Gauges disrupt the S2 foliation - recovery OK</p>
	111310	0	1114130	0					19	151B162	<p>± 1 minor</p> <p>Dark grey, noncalcareous, P2-foliated phyllite. S2 surfaces are dark stony grey and only slightly mark fingers. Phyllite finely and discontinuously banded in shades of grey. Upper portion of intervals dark grey w/ some ptase siltstone interbeds. Minor pyrite</p>

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
1										
				11413	6			19		<p>porphyroblasts w/ gts near pressure shadows within S2 foliation. Core made to very broken - very paker chippy w/ minor local incipient gneiss Recovery OK      Noted 1 small black "chert" nodule in phyllite</p>
			11413	0	11415	3		110	15B162	<p>\$ MINOR (5D \$4) 65:35 Soft, P<sub>S2</sub>-foliated, dark grey, non-calcareous phyllite. S<sub>2</sub> surfaces are dark steady grey. Thinly banded w/ 1-2mm thick pale grey to tan siltstone bands which are slightly dolomitic. Siltstone bands are parallel S<sub>2</sub> foliation. Interval 143-143.7 is pale green, P<sub>S2</sub>-foliated, soft, dolomitic muscovite-chlorite phyllite. Weathers to a very pale beige. S<sub>2</sub> surfaces are silvery beige. Minor bright green "fuchsite" gpts noted on S<sub>2</sub> surfaces locally. Marginal contacts are sharp parallel S<sub>2</sub>. Core very paker chippy w/ good recovery.</p>
			11415	3	11418	5		111	15B1213	<p>(5D3) 70:30 Dark grey, P<sub>S2</sub>- to C<sub>S2</sub>-foliated, very calcareous, soft phyllite. Calcite forms 2-5cm thick compositional bands of medium-grey, medium x-line marble. Very calcareous intervals are C<sub>S2</sub>-foliated - otherwise unit is P<sub>S2</sub> foliated. S<sub>2</sub> surfaces are steady grey. Contains 1-5cm interbeds of pale olive, soft, very calcareous, chlorite-muscovite phyllite. P<sub>S2</sub>-foliated S<sub>2</sub> surfaces are pale silvery green. Marginal contacts are sharp parallel S<sub>1</sub> and for S<sub>2</sub>. Core made to very paker chippy w/ good recovery.</p>
			11418	5	11517	1		112	15D101	<p>(5880 ± 2) 70:30 Dominant unit is soft, P<sub>S2</sub>-foliated, pale olive, calcareous, muscovite-chlorite phyllite. S<sub>2</sub> surfaces are very pale silvery green. Contains minor irregular pyroclastic porphyroblasts. Minor S<sub>2</sub>-parallel veins consist of calcite-quartz. Marginal contacts are sharp - parallel S<sub>1</sub>.</p>

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16 20	22 24	26 28 30	34 35	
		11517	1	112		Interbedded pelite is moderately soft, calcareous, CS2-foliated, dark grey-green phyllite. S2 surfaces are greenish grey. Sl microlithous defined by thin dolomitic phase siltstone bands. Locally cut surface is dark grey to black. For darker phyllite S2 surfaces are steel grey. Marginal contacts w/ SD are folded by D2. Core moderately broken w/ good recovery.
	11517	11619	5	113	5B121B1	±4 (5A61) 70:30 Soft, PS2-foliated, calcareous, dark greenish grey phyllite. S2 surfaces are dark steel grey. Calcite disseminated in thin diffuse compositional bands parallel S2. Cut surface has medium to dark greenish tinge when wet. Interval 164.5-167 consists of hard, noncalcareous, very dark grey to black, PS2-foliated carbonaceous, siliceous phyllite. S2-surfaces are shiny black and mark the fingers only slightly. Contains thin Qtz-pyrite veinlets. Adjacent to 5A (and to metabasite on lower EOE) phyllite is noncalcareous, pale green. S2 surfaces are silvery green. Appears to represent a slightly bleached, slightly altered phyllite. Possibly related to nearby metabasite. Core mod. broken to very poor chipping. Recovery good.
	11619	11912	0	114	5D11	(5C7) (5B76) (5B26) 40:30:15:15 Unit consists of metabasite w/ lesser interbeds of dark grey and pale silvery green, noncalcareous pelitic phyllite. Metabasite includes both SD and SC variants. SD is soft, dolomitic, PS2-foliated, olive chloritic phyllite. S2 surfaces are olive. Minor thin Qtz-dolomite veinlets are parallel S2. Marginal contacts w/ all other units are sharp. SC is striped green chloritic and grey carbonate-rich - "ZEBCA STRIPED". Thin, discontinuous chlorite streaks in a grey carbonate (dolomitic) matrix. Weathers to a pale tan. locally adjacent to metabasite have soft, very pale green, noncalcareous, PS2-foliated phyllite.

Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
			11912	0					114					<p>S2 surfaces are silvery w/ faint green tinge. Very micaceous aspect suggests a pelitic prot. Have gradational contact to soft, P2-foliated, noncalcareous, dark grey phyllite. S2 surfaces are steady grey.</p> <p>TOE - 189.5 Moderately to very broken with good recovery // 189.5 - 190.5 Mud gauge in metabasite. Contacts lost in rubble. // 190.5 - EOE mud gauge and very broken and rubble in dark grey phyllite. Recovery looks OK for all of interval. Pelite locally very potter chippy.</p>
	11912	0	121013	7					115	151A1611				<p>(5C46) minor (5D46) minor</p> <p>Moderately hard to hard, dark grey, P2-foliated, noncalcareous phyllite. S2 surfaces are shiny black and slightly mark the fingers. Contains oval black "cherty" nodules elongate in S2 foliation. Minor fine grained veins contain some disseminated pyrite. Breaks up smooth S2 and breaks as "chunks" rather than fissile plates.</p> <p>At 199 contains 3 thin bands of soft, P2-foliated, pale beige, muscovite-pyrite phyllite. Pyrite as discontinuous streaks in S2. Marginal contacts sharp. At 200.5 have thin band of dark greenish grey metabasite. Contains abundant bright green "fuchsine" streaks.</p> <p>Core very broken - moderately potter chippy - recovery OK.</p>
	121013	7	121017	4					116	141H113	45			<p>Siliceous black, noncalcareous phyllite has been "flooded" by fine-grained sulphides. Sulphides make up most of unit w/ carbonaceous, siliceous phyllite as "flooding" relicts. Dominantly pyrrhotite with fine irregular pyrite aggregates and streaky sphalerite. Contains abundant angular inclusions of white vein quartz. Sulphide content increases as go down DDH.</p> <p>Total sulphides 50-80% Estimated grade 4% (Pb+Zn). Core slightly broken w/ good recovery.</p>

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121017	4	121113	0			1117		15D141f	(5A6±1) 90:10	
			64	9							Moderately soft, P <sub>S2</sub> -foliated, pale tan, slightly dolomitic muscovite phyllite. S <sub>2</sub> surfaces are silvery cream. Contains scattered streaks/spot of bright green "fuchsite". Minor scattered pyrite porphyroblasts. Minor thin interbeds of dark gray, P <sub>S2</sub> -foliated, noncalcareous phyllite. S <sub>2</sub> surfaces are shiny black. Passes from soft to hard. Marginal contacts w/ S <sub>D</sub> are sharp parallel S <sub>1</sub> -folded by S <sub>2</sub> . Very similar to Unit #15 ( ) ToE-210.5 moderately broken w/ good recovery / 210.5-213 slightly broken but only 0.6 feet recovered. Drilling problem?
	121113	0	121416	5			1118		15B1216	1 ± f minor (5D46) minor	
			75	1							Noncalcareous, dark gray to black, P <sub>S2</sub> -foliated, moderately hard to hard, carbonaceous, siliceous phyllite. Locally contains subrounded, black "cherty" nodules elongate in S <sub>2</sub> . Locally contains S <sub>1</sub> microlithons defined by thin pale gray g <sub>to</sub> -dolomite siltstone compositional bands. S <sub>2</sub> surfaces range from shiny black to silvery gray locally they slightly to moderately mark the fingers. Near 221 have thin interval of P <sub>S2</sub> -foliated, pale olive tan, soft, muscovite-chlorite phyllite. Contains scattered bright green "fuchsite" spots. Core very broken and rubbly. Major recovery problems. 213-217 has 1.5 feet of pebbles w/ reground core, 217-221.5 only 0.5 feet of rubble, 221.5-228 2.2 feet of rubble, 228-232 3 feet of very broken, very pebbly chippy core, 232-237 2.4 feet of rubbly core, 237-242 2 feet of very broken and rubbly core, 242-246.5 1 foot of very broken core.
	121416	5	121513	0			1118		15A1611	Rubble	
			77	1							2.3 feet of black, hard, carbonaceous phyllite chips. Noncalcareous. S <sub>2</sub> surfaces are shiny black. Fault? Fold hinge?

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121513	0	121610	0				119	141A1310	± 4	(5A61) 90:10
			79	2							Rubble & fragments of noncalcareous, very pyritic, carbonaceous siltite. Could be considered a 4E15 ± 4. Difficult to determine proportions and textures because everything is rubble. Grade in upper portions of unit. Lower part of unit contains basinal siliceous pyrite and siliceous SA rubble. Overall grade probably 10% (Pb+Zn). Core entirely rubble with poor recovery. 253-257.5 only 1.5 feet of core. // 257.5-261 only 1.2 feet of core.
	121610	0	121714	0				120	151A161	9 minor	Soft, P2-foliated, noncalcareous, dark grey to black phyllite. S2 surfaces are slung black to dark steel grey and moderately mark the fingers. Contains compositional bands of qtz w/ coarse pyrite up to 3cm thick. Core very broken and rubble. Very poor chippy. Breaks into thin fissile plates. Recovery problems. 261-267 has only 2.2 feet core / 267-271 has only 1.5 feet of core / 271-EOI has 2 feet of core. Fault? / Fold hinge?
	121714	0	121817	1				121	51B16121	± 4	Dark grey, soft, S2-foliated, noncalcareous phyllite. S2 surfaces are steel grey. Contains scattered subhedral pyrite porphyroblasts w/ quartz pressure shadows in S2. Quartzose siltstone bands define S1 microfolds. Locally the siltstones are slightly dolomitic. Lower contact gradational into more siliceous phyllite. Moderately broken, moderately poor chippy. Recovery OK. Minor qtz-pyrite veinlets are folded during D2 deformation.
			83	5							
			87	5							

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121817	1	121913	4			1212		151A161		±1 ±9
			89	4							<p>CS2-foliated, dark grey to black, noncalcareous phyllite. Muscovite intervals are moderately soft. S2 surfaces are shiny black to stony grey and moderately mark the fingers. Contains dark grey, fine-grained quartz interbeds. Appearance of quartz is similar to the barren quartz bands on 4A. Contains thin off-white quartz bands/lenticles?/ribbons with disseminated sphalerite or pyrite. Estimated grade 1-2% (Pb+Zn) or less.</p> <p>TOI-291 moderately broken w/ good recovery // 291-EOI very broken w/ 15 cm gauge near EOI. Gauge along steep fracture running essentially down the core axis.</p> <p>Unit transitional between 5A and 4A.</p>
	121913	4	121918	5			1213		141A141		±3 ±7 (5A6) minor.
			91	6							<p>Very hard, PS2-foliated, dark grey, noncalcareous, slightly pyritic, carbonaceous quartz. S2 surfaces are flat black and only slightly mark the fingers. Contains thin bands of off-white quartz-sphalerite ribbons parallel S2. Locally contains 20 cm bands consisting dominantly of fine-grained sulphides. Sulphides contain abundant irregular quartz inclusions. Marginal contacts next S2. Contains sphalerite streaks. Upper band dominantly pyritized, lower band pyrite. Sphalerite &gt;&gt; pyrite except for the thick sulphide-rich bands. Estimated grade 6-8% (Pb+Zn).</p> <p>TOI-296 mod. broken w/ good recovery // 296-EOI very broken and rubble with good recovery.</p> <p>Small intervals consist of soft, PS2-foliated, dark grey to black phyllite. Contains minor white quartz veins w/ interstitial sphalerite.</p>
	121918	5	131016	5			1214		151A161		9 minor
			93	4							<p>Moderately soft, PS2 foliated, dark grey, noncalcareous phyllite. S2 surfaces are flat black and do not mark the fingers. Contains minor black "cherty" nodules. Locally</p>

Code	From		To		Recov.		No.		Unit	Description		
	10	14	16	20	22	24	26	28			30	34
			131016	5					1214		has 1-5cm thick intervals of pale grey greasy siltstone. Siltstone contains minor disseminated pyrite. Also contains qtz veins folded during P2. Veins have abundant coarse prograde pyrite. TOI- 303.0 med. to slightly broken w/ good recovery // 303-EOT Very barren and rubble w/ gouges. Gouges are irregular - not a major fault.	
	131016	5	131214	5					1215	51A119	6	[4A0] (SD4 & minor) TCR Hard, uncalcaneous, P2-foliated, dark grey phyllite. S2 surfaces are silvery black but do not mark the fingers. Can be barely scratched with a nail. Contains thin white qtz veins/fractures which contain disseminated sphalerite. Estimated grade 4-5% (Pb+Zn) Sphalerite > pyrite. Overall looks too phyllitic to be good 4A. But definitely more siliceous than your average phyllite. TOI- 309 med. barren w/ good recovery // 309-EOT Very barren and rubble. Breaks w/ extensive angular chunks. Some minor gouges present. Does have some recovery problems. 309-314 only 3 feet rubble / 314-317 3.4 feet of rubble spread out / 317-324 4 feet of rubble. / 324-324.5 1.5 feet of core w/ note of core occurring. Possible fault? • Upper part of interval has thin pale beige intervals of muscovite-dolomite phyllite. S2 surfaces are silvery cream. Soft, slightly dolomitic, P2-foliated. Highly altered SD metabasite.
	131214	5	131217	0					1216	51D14	14	Soft, P2, foliated, pale beige, slightly dolomitic, muscovite-dolomite phyllite. S2 surfaces are pale silvery beige. Contains thin discontinuous pyrite streaks along S2 and in scuttering fractures. Minor qtz-dolomite pegmatitic veinlets. Highly altered SD metabasite. Core slightly broken w/ good recovery.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	131217	0	131314	8			1217		15D101		
			102	4							Soft, calcareous, P52-foliated, pale olive, chloritic phyllite. Continuation of previous unit only not extensively altered. S2 surfaces are pale olive. Homogeneous. Contains minor thin qtz-calcite veinlets parallel S2. Lower marginal contact is sharp. Core slightly broken w/ good recovery.
	131314	8	131419	0			1218		15B1018	= B10 (5D0) M1006	
			106	4							Soft, calcareous, poorly C52-foliated, pale grey phyllite. S2 surfaces are silvery grey. Cut surface has definite greenish tinge when wet. S1 microlitic defined by pale grey to greenish grey qtz-calcite siltstone beds. Unit contains minor discontinuous brown biotite which is locally and sporadically developed. Contains minor thin interbeds of pale olive, soft, P52-foliated, calcareous chloritic phyllite. S2 surfaces are pale olive. TOI-339 very broken w/ 10cm gauge intervals. Only 3 feet core recovered. // 339-EOI moderately broken, moderately porous chippy w/ very minor incipient gouge. Recovery good. Major rock change occurs @ 324.5 in DDH
											EOH

Code	From		To (feet)				Feature	S <sub>0</sub> Dip Direct.	S <sub>1</sub> Dip Direct.		S <sub>2</sub> Dip Direct.		Description	
	10	14	16	20	22	24			26	28	32	34		38
				149	-	PS12	-		+	+	64			micaceous laminations present
				171	-	PS12	-		-	+	59			
				197	-	CS12S			29	310	71			micaceous laminations present
				1135	-	CS12S			43	310	67			" " "
				1136	5	PS12	-		+	+	65			" " "
				1159	5	PS12	-		-	+	65			S <sub>2</sub> defined by comp banding
				1193	5	PS12	-		-	+	65			micaceous laminations present
				1198	5	PS12	-		-	-	74			S <sub>2</sub> defined by (altered musc) lamination
				1284	5	CS12S			39	2810	84			micaceous laminations present
				1299	5	CS2S			31	352	61			" " " + comp banding
				1334	-	PS12	-		-	+	65			S <sub>2</sub> defined by comp banding
				1344	-	PS12	-		-	-	77			S <sub>2</sub> defined by fine (altered) musc layers & comp banding
									+	EOHT				







PROJECT: \_\_\_\_\_ DRILLHOLE NO. DPH 89623 COORDINATES: N: \_\_\_\_\_ DATE Aug 21/89  
 LOCATION: \_\_\_\_\_ HOLE SIZE: \_\_\_\_\_ E: \_\_\_\_\_ PAGE 3 of 3  
 LOGS: A. Reznik INCLINATION: \_\_\_\_\_ ELEVATION: \_\_\_\_\_



PITEAU & ASSOCIATES  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

GEOTECHNICAL CORE LOG

246.5

Fig. 1. Typical rock mechanics core log.

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE CAPACITY NO.		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CRACK JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		DEPTH	ANGLE			NO.	FREQ.	NO.	FREQ.				
253	6.5	4.8		0			2		F								0	
257.5	4.5	1.3		0			6		F								0	
267	1.5	1.5		0			6		F								0	
271	5.0	1.5		0			6		F								0	
275	4.0	3.1		0			6		F								0	
280	5.0	5.0		.70			7		F								0	
<del>282</del>	<del>2</del>	<del>1</del>		0			<del>7</del>		<del>F</del>								1/0	
<del>282</del>	<del>2.5</del>	<del>2.5</del>		.35			9		F								2/0	
<del>291</del>	<del>3</del>	<del>2</del>		0.5			<del>7</del>		<del>F</del>								0/0	
298.5	5.5	5.5		1.4			9		F								1	
303.8	5.3	5.3		1.85			9		F								1	
209	5.2	5.2		.70			8		F								0	
314	5.0	3.0		0			6		F								2	
317	3.0	2.8		0			6		F								1	
321	4.0	2.7		0			6		F								0	
324	3.0	2.2		0			6		F								0	
324.5	.5	.5		0			6		F								0	
328.5	4.0	4.0		1.5			10		F							CAVE	1	
334	5.5	5.0		1.95			10		F								1	
339	5.0	2.9		0			7		F								0	
344	5.0	5.0		0			7		F								1	
349	5.0	5.0		.85			8		F								0	

- EOH -

89-G-24

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89 G - 24

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,943.879 N

6,210.69 N

592,504.880 E

2,834.52 E

Grid Co-ords: 68W / 7+50 N

Elevation: 1289.512

All symmetry determinations looking

Total Depth: 382 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90 VERTICAL

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: Drilled through ore

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>NW</u>	<u>0</u>	<u>110 feet</u>	
<u>NQ</u>	<u>110</u>	<u>382 feet</u>	

Hole Cemented: No Steel down Hole: No

\_\_\_\_\_

\_\_\_\_\_

Assay Lab: \_\_\_\_\_

\_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 14/89 Completed: Aug 15/89

Diamond Drill Core Log

Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

DDH 89G-24  
2 8

Code	Drillhole	Elevation	Northing	Easting	Units (feet/metres)	R.F.E
I	2	8 10	16 17	24 25	32 34	39 41 42
T	89G-24					

F E E T

Code	Drillhole	Depth	Zenith Angle	True Azimuth	Comments
I	2	8 10	14 22	26 28	32 34 56
R	89G-24	100	9101° 0	100° 0	AT COLLAR
R		13650	1814° 0	1831° 0	SIPIERKY ISLAND
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					

Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions
I	2	8 10 56

DDH 896-24  
2 8110 from shift  
reportCURRAGH RESOURCES INC.  
Lithologic LogPage 03Date: SEPT 30/99 Logged By: UVR

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
	10	0	11	18	0			1		#	TRILONED - No RECOVERY
					33	5					
	11	18	0	11	18	4		12		#	1 Redrilled 2" 10A/B 0/B fragment.
					36	1					
	11	18	4	11	18	2		13	15B1210		(5D0) 75.25
					41	2					
											Medium to dark grey, med- carbonaceous, med- soft, locally CS <sub>2</sub> foliated, moderately calcareous, musc phyllite. Contains local thin white lithons defined by gtz + lesser calcite. S <sub>2</sub> surfaces medium-dark shiny grey.
											Interbedded in SB are thin pale green + white striped calcareous chloritic phyllite. Contains abundant lithons + bands defined by gtz + calcite. Bands range from 5" to 1.5' thick, margins // to S <sub>2</sub> .
											base in broken along S <sub>2</sub> + local fractures, 1.0' of wire loss.
	11	18	2	11	18	9		14	14A14		(4D4) (4L624) (4G4#) 70:20:10:TRACE
					42	0					
											70E-135.2 is med- soft, light pale green, calc-musc altered phyllite. Contains abundant thin bands + stringers of gtz + py + sph + gal.
											135.2 - 135.4 is thinly PS <sub>2</sub> banded, in calcareous, massive baritic/pyritic S <sup>+</sup> within baritic S <sup>+</sup> is highly broken + fractured permatitic gtz vein.
											135.4 - 137.2 is black, in hard, CS <sub>2</sub> banded and foliated, carbonaceous gtzite. Banding consists of py > sph + gal in interstitial fine gtz. Banding 25-30% of unit volume

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20	22 24 26 28 30 34 35				
						generally a lam thick. S <sub>2</sub> surfaces shiny black. Abundant thin fractures in calcite. $\checkmark$ 127.2 $\rightarrow$ EOI carbon has been "rooted" out of 4A4 against altered metabasite band. Est % Pt + Zn for entire interval 8-10%. Core is broken, very good. No obvious faults.
	111317 9	111413 4 43 7		15	141E1416 #	\$ minor (4L624) 85:15 High grade, banded, calcaneous, massive pyritic sulfides Banding defined by variations in Dol, Sph + Gal, and calcite content within massive S <sup>=</sup> are large white-tan irregular dol + g/lc clasts. Banding defines 2-3 phase 2 fold hinges. Bottom contact Bx'd. 141.0 $\rightarrow$ 141.9 is light pale green-grey altered chl <sup>&gt;</sup> mass phyllite. Margins in S <sup>=</sup> // to S <sub>2</sub> . Contains local thin stringers + bands of g/lz + py + minor sph + gal. Near upper contact is 1 large angular clast of 4L "floating" in massive py S <sup>=</sup> . Est % Pt + Zn 10-12% for entire interval. Core must be broken, 0.5' core loss
	111413 4	111512 7 46 5		16	141L10	Mud soft, PS <sub>2</sub> foliated, nonconformous, <sup>altered</sup> mass + chl phyllite, S <sub>2</sub> surfaces dull mottled light grey-green. Minor "leise" coatings on S <sub>2</sub> . Unit is buff-grey, green local minor carbon. Core is broken, 3.9' resid.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
	11512	7	11519	7				17	141A10	34	
			48	7							
											Med hard, black, (S <sub>2</sub> ) foliated, ribbon banding carbonaceous qtzite. Ribbon banding defines S <sub>1</sub> + S <sub>2</sub> banding up to 2 cm thick, defined by deformed py + sph + gal in interstitial fine qtz. Bands 40% of unit volume. S <sub>2</sub> surfaces dull dark grey → black. Est Ph + Zn ranges from 3-8% Bottom 20' of unit contains abundant, thin micaceous foliations // to S <sub>2</sub> . TOI → 154.5 $\bar{v}$ broken, recy, 0.5 154.5 → EOI $\bar{v}$ broken, recy, 0.5
	11519	7	11613	1				18	15A11	96	(4A4) 60:40
			49	7							
											TOI → 161.5 is med hard, siliceous, black, poorly banded, micaceous, carbonaceous phyllite. Unit is highly fractured. Fractures are thin, steep & healed by fine qtz + py. Contains local lithons defined by fine qtz + py ± minor sph + gal. S <sub>2</sub> surfaces carbon black. Est % Ph + Zn 1-2% 161.5 → EOI is $\bar{v}$ hard, P <sub>2</sub> S <sub>2</sub> banded, carbonaceous qtzite. Banding is thin, generally < 1.0 cm, defines S <sub>2</sub> and consist of py + sph + gal + interstitial fine qtz. S <sub>2</sub> extensively re-mobilized into abundant steep fractures. Est % Ph + Zn 8-10% Est % Py 20% Core $\bar{v}$ broken, recy good.
	11613	1	11619	7				19	15B10	12 ± 7 minor	
			51	7							
											Med soft, light to locally dark grey, locally slight

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											green tinge, slightly calcareous mass + chl phyllite local microliths defined by qtz + minor calcite. Sz surfaces range from light silver grey to locally dark grey, locally Sz surfaces have slight green tinge in carbon poor intervals. No obvious faults, local thin fractures infilled w qtz + cc. Core in bucket along Sz very good.
	11619	7	11714	5			1110		151A1619	1	Highly fractured, black, med soft to locally hard, CSz foliated, siliceous, noncalcareous, carbonaceous phyllite. Contains local abundant thin qtz + ps + sph + gal' bands // to Sz. qtz + ps + sph + gal' also infill abundant thin anastomosing fractures. Sz surfaces dark grey to black. S <sup>+</sup> content increases moving down interval. Est % P <sub>1</sub> + Z <sub>1</sub> 5-6% Est % P <sub>2</sub> + Z <sub>2</sub> 2-3% Core in bucket, very good
	11714	5	11719	1			1111		141D10		"micaceous" (5C4#1) 95:5 Dominant unit is highly fractured, light grey, thin, PSz banded, med hard, micaceous quartzite. Bands generally < 1/8 cm, defined by ps + sph + gal' + interstitial qtz. S <sup>+</sup> extensively re-mobilised into abundant thin anastomosing fractures. Contains abundant thin micaceous laminae aligned // to Sz. Est % P <sub>1</sub> + Z <sub>1</sub> 6-8% Est % P <sub>2</sub> 15%

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20	22 24 26 28 30 34 36				
						175.4 → 179.4 is pale olive green + tan striped, mud-soft, calcareous/dolomitic altered metabasite breccia. Margins are sharp    to S <sub>2</sub> .
	1179.1	1183.8 56.0		11241E1461#	± Minor Breccia (420# Breccia)	70:30 701 → 180.4 massive, fine grey, mud baritic, banded pyritic sulphides. Banding defined by varying calcite, barite, spheral, concentration. Contains local small clasts of white fine quartz "floats" in massive S <sup>2</sup> matrix. Banding is thin, 1/2 cm clastic S <sub>2</sub> .
						180.4 - 181.6, is fractured, calcareous, micaceous, poorly banded light grey quartz contains local large highly fractured, angular quartz ice vein "clasts". Banding is highly disrupted, defined by fine py + sph + gal + interstitial grey quartz. Matrix is massive S <sup>2</sup> breccia. S <sup>2</sup> extensively re-mobilized into thin steep fractures.
						181.6 → 180.1 is dark brown grey, mud banded, locally baritic, massive pyritic S <sup>2</sup> . Poorly banded - defined by honey sph, barite + calcite rich intervals    to S <sub>2</sub> . Contains local angular small massive Po "clasts". Also contains local white subrounded small quartz clasts suspended in massive S <sup>2</sup> .
						Est Pbt Zn - Entire Interval 10-12% Core in broken, heavy ground.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	11813	8	11816	2			1113		1518	16	±2 ±4 ±9 ±7 minor
			56	8							<p>Mod- soft, light grey, locally green, locally dark grey → black, locally altered, nonconformous musc ± chl phyllite. Unit becomes gradually darker moving down the interval due to increasing carbon content. Top 8.0" of interval altered to pale green-grey chloritic phyllite. Within this interval is local thin fragmented pyg. qtz veins.</p> <p>Fine Py + Sph infill local fractures.</p> <p>Est % Pb + Zn 1-2% Maybe.</p> <p>S<sub>2</sub> surfaces range from light silvery grey green to dull dark grey near EOT.</p> <p>TOI 184.2 <math>\bar{u}</math> broken 0.5' solid.</p> <p>184.2 - EOT in bucket, very good.</p>
	11818	2	11819	2			1114		1412	10	± # ± # ± 3 "micaceous" (4L6124) 90:10
			57	7							<p>Dominant unit is mod- hard, micaceous, s-lattice banded, qtzite. S<sup>5</sup> bands defined by dominant fine py, minor sph + gal + minor interstitial fine qtz. Bands range up to 10 cm thick and define S<sub>2</sub>. Contains abundant thin micaceous calcations aligned // to S<sub>2</sub>. Local thin intervals contain minor interstitial calcite + dolomite.</p> <p>S<sup>5</sup> bands 30-40% of unit volume. Est % Pb + Zn 6-7% dominantly sph.</p> <p>Fractured at 186.5 is 8" thick band of pale green-grey, nonconformous altered chl/musc phyllite. Thinly P<sub>S2</sub> laminated. contains abundant thin bands and stringers</p>

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Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											of fine py + minor sph + gal aligned // to S <sub>2</sub> . Muscovite of 4L // to S <sub>2</sub> . Core in broken, very good.
	11819	2	11914	0			115		151816	\$	Medium grey, thin, PS <sub>2</sub> laminated, micaceous, musc. phyllite. S <sub>2</sub> surfaces medium steel grey. Contains local minor micro lichen defined by Qtz + minor del. Contains abundant thin Qtz + minor silstone bands aligned // to S <sub>2</sub> . TOI → 191.6 in broken, very good. 191.6 → TOI in broken, very good.
				591							
	11914	0	11915	6			116		15114	\$	Dull green grey + white tan striped, dolomitic, altered metabasite. Muscovite sharp, // to S <sub>2</sub> . Striping defined by alternating chl + Qtz + del bands - generally < 5mm aligned // to S <sub>2</sub> . Core in broken, very good.
				596							
	11915	6	11918	5			117		14E114	\$	Bxci. Large angular banded dolomitic Qtzite clasts in matrix of poorly banded, calcareous fine grained massive S <sup>=</sup> . Clasts range up to 15 cm φ - massive S <sup>=</sup> forms ductile plane breccia around clasts. Clasts are highly fractured. Fractures infilled by fine py + gal + sph. Banding in massive S <sup>=</sup> defined by concentrations of sph + gal + calcite.
				605							

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Est Pb + Zn 8-10%
											Core 5 broken, very good.
											Qtz-dsl clasts are 25-30% of unit volume.
	119	185	1210	140			118		141	161	24 Bxa.
				62	2						Mod soft, buff green-grey, altered musc ± chl phyllite breccia.
											Contains abundant thin steep fractures - fragments show some rotation.
											Locally abundant qtz + ps + sph + gal infill fractures. Locally gassed along fractures.
											Est % Pb + Zn 2-3% Likely not a significant fault.
											Core 6 broken, 3.4' rec'd
	1210	140	1210	167			119		141	16	
				63	0						Psa foliated, buff green-grey, altered chl ± musc phyllite. S <sub>2</sub> surfaces dull green-grey - local "talrose" coatings. Unit is mod soft. Contains local fragmented pegmatitic qtz veins up to 3cm thick.
											204.0 → 204.3 white powdery core.
											204.3 → FOI in broken, very O.K.
	1210	167	1211	146			120		151	1216	± minor (SB ± minor) 80:20
				65	4						Dominant unit is dark grey, mod soft, locally
											CS <sub>2</sub> foliated, mod carbonaceous phyllite. S <sub>2</sub> surfaces dark grey to black. Contains local thin qtz + dsl silty bands and lithons. Taken down as a scale of 5cm 55cm

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											are pale light green-grey, noncalcareous, musc + chl phyllite intervals. Margins are // to S <sub>2</sub> . Appear texturally similar to SB26 except carbon is lacking. Core is broken, 4.9' acid.
	12114	6	12149	4			1211		15130		± 2 minor (5B07 Bio) 85:15
			760								Dominant unit is medium grey, locally (S <sub>2</sub> ) foliated, somewhat calcareous, locally more carbonaceous musc. phyllite S <sub>2</sub> surfaces range from light steel grey to locally shiny dark grey. Contains local lithons defined by gtz + calcite ± dol siltstone bands and laminae. Interbedded in intervals ranging from 3cm to 50cm is light pale green-grey, calcareous, (S <sub>2</sub> ) foliated musc + chl phyllite S <sub>2</sub> surfaces are clothed medium-dark green-grey. Carbon local fine biotite developed within calcite rich siltstone bands + laminae. Margins w/ darker S <sub>2</sub> ± 2 are gradual over 2-3cm defined by gradual lightening of the unit. SB07 bands contain more abundant gtz + calcite lithons.
											TOI → 217.3 is broken along S <sub>2</sub> 1.5' core loss.
											217.3 → 242.4 is broken, very good.
											242.4 → EOI is broken along S <sub>2</sub> and local steep fractures. Very good

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	1249	4	1253	9					12R	15D13	B10.
				774							Mod soft, thinly ps2 laminated, pale green, v calcareous, chloritic phyllite. S2 surfaces are shiny, pale green. Abundant calcite occurs diss in broad bands up to 5cm thick aligned // to S2. Fine brown biotite laminations occur within more calcite rich bands. Margins sharp, // to S2.
											TOI → 252.0 v broken 2.1' rec'd.
											252.0 → FOI in broken, very good
	1253	9	1288	6					1213	15B16	± 8 minor (5D34 B10)
				880							Medium grey, uncalcareous, locally (S2 folia lead, mic phyllite. S2 surfaces medium steel grey. Contains local minor thin silty bands + laminae defined by white fine grt + dol locally, bands and laminae define lithons.
											282.5 → 283.1 is band of v calcareous, v soft, dull grey-green, biotitic, chloritic phyllite. Same as #22 except softer and more altered due to steep fracture. Margins // to S2.
											TOI → 267.2 in broken very good.
											267.2 → 275.0 v broken, locally "poker chippy", very O.K.
											275.0 → 279.5 in broken, very good
											279.5 → 282.5 v broken 2.0' rec'd.
											282.5 → FOI in broken along S2, very good.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28 30	34 35		
	12886	12907 886		1214	14L10	±6 ± 24 minor ± GOUGE. Mod- soft, locally sugared, altered musc + chl phyllite. Locally, chl + musc. PS2 laminated. Muscular/arenous. Contains local minor thin bands // to S2 defined by qtz + minor py + minor sph + gal. Bottom 4" against massive S <sup>+</sup> is white powdery gouge. Margins of gouge // to S2? Core is broken in local gouge, 1.9' recd.
	129107	12942 897		1215	14E14 # ± 6	Thinly PS2 banded, dull brown, calcareous, massive pyritic sulphides. Top 1.5' of unit contains abundant elongated calcite. Also contains thin bands in diss- facite. Remaining unit more py rich, contains local "suspended" small white clasts of qtz. Clasts generally < 3mm φ. Calcite occurs in thin diffuse bands + streaks // to S2. Bottom 8" of unit contains abundant diss- sph + gal + minor Ba in thin bands // to S2. Est grade for entire interval 6-8% TOI → 293.0 is broken along local steep fracture. Heavy gravel.
	129142	130142 927		1216	14A14 (4D4) (5A6J 9) 80:20:TRACE. TOI → 295.5, Thinly banded, is hard, light grey, high grade, pyritic gteite. Bonding ranges up to 2cm thick aligned // to S2. Bonds are generally all spl or all py, but not both. S <sup>+</sup> extensively re-mobilized	

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											into late steep fractures. Banding is 25-30% of unit volume. Est Pbl Zn 12% Dominately sph. 295.5 → EOT $\bar{v}$ high grade, sph rich, ribbon banded, black carbonaceous gtz. Banding is generally 4 cm thick, defined by abundant red sphalerite + lesser py + interstitial fine gtz. Bands aligned // to S <sub>1</sub> + S <sub>2</sub> . Retine lithons. S <sub>1</sub> have been extensively remobilized into late thin anastomosing fractures. Est Pbl Zn 15-16%, Dominately sph. Centered at 298.2 is 4" thick band of, nonconformable black, mod hard, carbonaceous phyllite. Margins // to S <sub>2</sub> . Contains local thin bands defined by gtz + clst py + minor dol. 701 → 303.2 in broken, very good 303.2 → EOT $\bar{v}$ broken, very good
	1310	142	1310	182			1217		141E	146f	Thickly banded, moderately brittle, massive pyritic S <sub>1</sub> . Banding ranges up to 15 cm thick defined by concentrations of sph + gal + minor ka + dolomite. Margins at bands parallel to S <sub>2</sub> . Contains local small white "clasts" of dol + gtz up to 1cm $\phi$ . Est Pbl Zn 7-8%. Near EOT is steep polished fracture banding 16/210 w.r.t. S <sub>2</sub> . Slickens trend 34° to core axis See in broken, very good

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	13	10	15	7			12	18	15	16	± 2 minor ± GOUGE minor
				102							Mud soft, noncalcareous, medium grey → locally dark grey, dominantly PSz foliated, locally CSz foliated, musc. phyllite. Sz surfaces shiny steel grey - locally shiny dark grey. Contains abundant thin qtz = minor dolomite silicate bands and laminae. Locally, laminae define microlithons. Dol in fill local thin X-cutting fractures. TOI → 312.0 is flakey, v soft, phyllite gouge. Bottom ore contact is faulted. Only 10' of gouge rec'd. 312.0 → FOI m broken, very good.
	13	13	15	7			12	19	14	16	± 5 minor "stringers" [5B74 ± 0 ± B10]
				109							Unusual rock type. Buff green-grey, mud soft, locally CSz foliated, locally stringered, locally cherty, calcareous. altered chl + bio → musc + qtz phyllite. Contains abundant pale green chlorite in thin bands and laminae. Locally, chl → bio Bin like occurring in thin laminae    to Sz. <sup>locally</sup> Within these bands is minor interstitial calcite. Local <sup>minor</sup> small subrounded pink garnets occur within chl-bio rich bands. Occurring intermittently throughout are thin qtz = fine py "stringers" and bands. Bands commonly define lithons. Traces of Crp in fill local thin fractures. Est To Py 1-2%. Core 5 broken, very good.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28	30 34 35		
		1318 R 116	0 4	1310	151B16	± <u>Barrois</u> ± <u>BIO TRACE</u> (5D4) 95:5
						Dominant unit is light grey, Psz foliated, used soft, noncalcaneous, musc. phyllite. S <sub>2</sub> surfaces range from light to medium shiny steel grey (carbon) local microlithons defined by thin qtz + clst laminations. Dol + qtz in R!! local like steep fractures. In bottom 5.0' are two thin pale green-tan altered dolomitic / chloritic phyllite bands. Margins of bands    to S <sub>2</sub> . SB contains local, minor development of thin brown biotite folia    to S <sub>2</sub> . TOT → 373.0, $\bar{S}$ broken, very good 373.0 → 375.0 $\bar{V}$ broken along steep fracture, very good 375.0 → EOH $\bar{S}$ broken, very good
						EOH

DDH 89-6-24  
2 8

CURRAGH RESOURCES INC.  
Structural Log

Page: \_\_\_\_\_ of \_\_\_\_\_  
Date: Aug 21/89 Logged By: A. Reznik

Code	From		To (feet)	Feature	E S	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		Description
	10	14 16				Dip	Direct.	Dip	Direct.	Dip	Direct	
1	10	14 16	20 22 24 26 28			32	34	38	40	44		
			11250	C/S12 S			43	1110	80			Thin micaceous laminations present 11 to S <sub>2</sub>
			11460	A/S13 -			33	T	T			S <sub>3</sub> defined by thin silvery laminations.
			11600	C/S12 S			43	1133	70			Thin micaceous lamination 11 to S <sub>2</sub> present
			11905	A/S12 -			T	T	60			" " " " " "
			11940	C/S12 M			11	T	40			Micaceous laminations present.
			11940	T -			T	T	T			Fold Nose Present.
			12265	C/S12 Z			43	1118	75			Micaceous laminations present.
			12320	C/S12 S			52	3132	72			" comp banding present, also
			1260	C/S12 S			64	0155	79			" " " "
			12718	A/S12 -			T	T	76			S <sub>2</sub> defined by micaceous laminations and comp banding
			12975	A/S12 -			T	T	70			S <sub>2</sub> defined by Py; Sph banding.
			13226	A/S12 -			T	T	68			S <sub>2</sub> defined by thin micaceous laminations 11 to it.
			1345	A/S12 -			T	T	79			S <sub>2</sub> defined by comp banding present.
			1352	A/S12 -			T	T	69			S <sub>2</sub> defined by 'altered' musc laminations.
			13715	C/S12 S			43	3140	78			S <sub>2</sub> defined by thin laminations & lay the 'fine altered' musc laminations. 11 to it

ASSAY LOG (SAMPLER'S COPY)

Date SEPT 21/89 Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
1	10 0 14 16 41.20	22 26 28 30 32 34 36 40 42	37232	127	277	14A#	(404)(4624)(464#) 70:20:101 WASTE
	113 15 2 113 17 9	42.0 43.2	37233	155	37	41E146#	± minor (4624) 85:15
	114 13 7 114 16 5	44.0 45.0	---	---	---	WASTE	
	115 12 7 115 15 5	46.0 47.0	37234	128	218	14A10	± 4
	115 15 5 115 19 7	48.0 49.0	37235	942	42	14A10	± 4
	115 19 7 116 13 7	51.0 52.0	37236	134	34	15A1196	(4A4) 60:40
	114 19 7 115 16 7	53.0 54.0	---	---	---	WASTE	
	116 19 7 117 14 5	55.0 56.0	37237	143	48	15A1619	1
	117 14 5 117 19 4	57.0 58.0	37238	46	43	14D101	"miscellaneous" (5C4#8) 95:5
	117 19 1 118 13 8	60.0 61.0	37239	147	47	41E146	# ± 7 minor Bxa (4D0# Bxa) 70:30
	118 13 8 118 16 2	62.0 63.0	37240	129	215	15B16	± 2497
	118 16 2 118 19 2	64.0 65.0	37241	130	310	14D10	± # ± 3 miscellaneous
	115 17 7 115 19 6	66.0 67.0	---	---	---	WASTE	
	119 15 6 119 18 5	68.0 69.0	37242	129	215	41E114	± Bxa
	116 0 5 116 0 6	70.0 71.0	---	---	---	WASTE	
	12 19 10 7 12 19 14 2	72.0 73.0	37243	135	315	41E141#	± 6
	12 19 14 2 12 19 17 2	74.0 75.0	37244	130	310	14A141	(4D4) 50:50
	12 19 17 2 13 10 1 0	76.0 77.0	37245	130	310	14A141	
	13 10 1 0 13 10 4 2	78.0 79.0	37246	132	312	14A141	
	13 0 14 2 13 10 8 2	80.0 81.0	37247	140	410	41E146	±
	113.9 1116.4	---	---	---	---	WASTE	

~~Foot~~

PROJECT \_\_\_\_\_ DRILLHOLE NO. DBL 89 624 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_  
 LOGGER A. Roznik INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE Aug 21/89  
 PAGE 1 of 3



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		DIP		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CALCULATED	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
122	122	3.6		0			6		F									
127	5.0	5.0		.35			6		F									0
132	5.0	5.0		0			7		F									1
134	2.0	2.0		.5			7		F									3
134.5	.5	.5		0			6		F									0
136.5	2.0	1.6		0			6		F									0
141	4.5	4.5		0			7		F									0
141.5	.5	0		0			0		-									1
147	5.5	5.5		.5			7		F									0
149	2.0	1.7		0			6		F									0
152	3.0	1.6		.6			6		F									0
153.5	1.5	1.5		0			6		F									0
154.5	1.0	1.0		0			7		F									0
160	5.5	5.5		2.55			10		F									0
165	5.0	5.0		1.5			9		F									0
170	5.0	5.0		0			7		F									0
175	5.0	5.0		1.2			8		F									0
178.5	3.5	2.2		.8			8		F									0
179.5	1.0	1.0		0			7		F									0
184	4.5	4.5		2.8			10		F									2
189	5.0	5.0		1.6			10		F									0
194	5.0	3.8		1.7			9		F									0
199	5.0	3.0		2.25			9		F									4 1/2
204	5.0	5.0		0			7		F									1
207.5	3.5	3.0		0			7		F									0
211.5	4.0	3.6		0			7		F									0
216	4.5	4.5		0			7		F									0
212	2.0	2.0		0			7		F									0

Fig. 1. Typical rock mechanics core log.



89-G-25

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-25

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,902.582 N

6,212.79N

592,464.575 E

2,776.82E

Grid Co-ords: 68W / 5+50 N

Elevation: 1288.269

All symmetry determinations looking

Total Depth: 381 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -60° to SW

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: running surface hole // rods very tight from core at top of hole

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
------	-----------	----	------------------------------------

Hole Cemented: No Steel down Hole: No

<u>NW</u>	<u>0</u>	<u>195 feet</u>
<u>NQ</u>	<u>195</u>	<u>381 feet</u>

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 16/89 Completed: Aug 17/89

DDH 896-25  
2                      8

Diamond Drill Core Log

Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

Code	Drillhole	Elevation	Northing	Easting	Units (feet/metres)	R.F.E						
I	2	8	10	16	17	24	25	32	34	39	41	42
T	896-25											

FEET

Code	Drillhole	Depth	Zenith Angle	True Azimuth	Comments					
I	2	8	10	14	22	26	28	32	34	56
R	896-25	10	0	-16	0	0	22	22	0	A.T. COLLAR
R		12	14	0	-16	1	0	22	28	0
R		13	14	0	-16	2	0	22	29	0
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	
R					.		.		.	

Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions		
I	2	8	10	56
		LOISIT IREITIAKWI IATI I3I20I FIEIETI		
		NDIIEI SHUIT IDIOWI IEARIYI WITHI TIIGHT IRIIDIS		

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
	10	0	1195	0		11	#1	TRIMMED - NO RECOVERY		
			59	4						
	11915	0	1210	7		12	#1	OIB 10AB boulder fragment		
			61	2				One 4" gtz - feldspar - bio - hornblende granite.		
	1210	7	12111	4		13	14K10	Weathered.		
			64	4				Rusty, buff tan-grey, P52 foliated, nonconformable altered musc. phyllite. Abundant patchy orange rust on fracture and S2 surfaces. Contains local thin gtz py stringers & bands - no visible grade. Unit is v soft. S2 trends 8° to core axis.		
								Core v broken 4.4' rec'd		
	12111	4	12116	6		14	14A10	Bxa Mod Weathered. (5B Gouge)		
			66	0				Highly fractured and broken, mod hard, black carbonaceous gtzite breccia. Ribbon banding obliterated. S <sup>=</sup> extensional, re-mobilized into abundant fractures. Est % Py 15-20%. No visible grade. Breccia due to proximity to lower thick gtz vein.		
								Top 2" is soft light grey mud gouge.		
								Core is rubble gouge + breccia 3.8' spread out rec'd.		
	12116	6	12145	9		15	110R10	Mod Weathered.		
			75	0				Highly fractured and broken, locally brecciated, white pegmatitic quartz vein. Local traces of sph and py infill thin fractures. Fracture surfaces have abundant		

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From			To			Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	35		
													<p>patchy orange rust coatings. locally vuggy due to weathered carbonate in fractures. Dol in fills local fractures.</p> <p>TOI → 218.0 v broken, 1.4' rec'd</p> <p>218.0 - 226.0 m broken, rec'y good</p> <p>226.0 - 228.5 v broken, rec'y good</p> <p>228.5 - 234.5 rubble, 2.9' rec'd</p> <p>234.5 - 235.5 s broken, rec'y good.</p> <p>235.5 - 239.0 rubble, 2.5' rec'd</p> <p>239.0 - 240.5 v broken, 1.7' rec'd</p> <p>240.5 - 243.8 rubble, 3.3' rec'd</p> <p>243.8 - EOT m broken, rec'y OK</p>
	121415	9	121514	0					16		151816		<p>Gouge ± Bxa</p> <p>medium grey, v soft, phyllite mud gouge. non-laminar.</p> <p>249 → 249.6 is highly fractured, light grey, P<sub>32</sub> foliated, non-laminar slightly altered musc phyllite. Sa surfaces shiny steel grey, v abundant "bitumens" coatings.</p> <p>Gouge is gouge and breccia, only 1.9' rec'd.</p>
	121514	0	121516	4					17		15A16		<p>± 19 Bxa + Gouge (1090) 85:15</p> <p>Dominant unit is med soft, dark grey to black highly broken and fractured carbonaceous phyllite breccia. Contains locally abundant thin qtz ± py bands // to Sa.</p> <p>Top 0.6" of interval is highly broken, white pyromet. lvs qtz vein.</p> <p>TOI → 154.6 rubble, rec'y OK.</p>

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											154.6 - FOI $\bar{v}$ broken gouge + bxa, v. recy, O.K.
	121516	4	121519	8				8	1101919	Bxa	(5 B6 Gouge) 50:50?
			79	2							TOI - 257.0 Highly fractured + broken, v. recy, qtz vein. Fractures filled w abundant fine py + traces of sph.
											257.0 - 259.0 Soft, muddy, medium-grey phyllite gouge
											259.0 - FOI Highly fractured + broken qtz vein. Fine py + marcasite? in fill fractures.
											Case is rubble and gouge 2.3' rec'd
	121519	8	121617	0				9	14E11	+4 + 8 trace <sup>+qtz</sup> Bxa. + Gouge	(5 B6 Bxa) trace.
			81	4							Homogeneous, massive fine grained pyrite. Contains abundant small subrounded white qtz clasts. Clasts generally < 3mm $\phi$ . Local split gal in thin streaks // to S <sub>2</sub> . Local minor qtz vein fragments up to 5cm d "float" in sulphides. Local traces of sp in thin fractures. Top 2.5' contains local highly fractured <sup>non-calcareous</sup> mass phyllite fragments generally < 3cm $\phi$ .
											264 - 264.6 is medium grey soft flakey gouge margins not recovered.
											TOI - 262.1 $\bar{v}$ broken along abundant fractures, v. recy O.K.
											262.1 - 265.2 rubble and gouge. 3.5' spread out rec'd.
											265.2 - FOI $\bar{v}$ broken, v. recy, O.K.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
	1216	170	1217	118		110	1101Q10	<p>Very hard, highly fractured, white pegmatitic qtz vein. Contains local, minor small musc phyllite fragments. Minor patchy orange rust on fracture surfaces. Local bases of py + sph infill fractures.</p> <p>Cone is broken, 7.1' spread out void</p>		
	1217	118	1217	118		111	11101Q10	<p>(4003) (5B26) 80:15:5</p> <p>Dominant unit is highly fractured and broken pegmatitic qtz vein. Patchy orange rust coatings on fracture surfaces. Traces of Py + Sph infill local fractures. Contains local highly fractured fragments of moderately carbonaceous musc phyllite. Fragments range up to 8cm &amp; aligned // to S2?</p> <p>TOI → 273.0 is very hard, py + sph + sil banded quartzite. Banding approx. 1cm thick, defines S2. S2 steep, ~14° to core axis. Est Pb + Zn 7-8%. Top 2" of unit mud soft, light grey, musc phyllite</p> <p>TOI - 273.4 is broken, rocky, 0.5</p> <p>273.4 - FOI rubble, 5.9' spread out void.</p>		
	1217	118	1219	112		112	11101Q10	<p>Highly fractured and broken, white pegmatitic qtz vein. Musc phyllite. Patchy orange rust coatings on fracture surfaces. Locally, vuggy due to weathered carbonate in fractures. Local thin carbonaceous phyllite fragments</p>		

Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
														occur sparsely - generally < 2 cm φ. (one is gtz rubble, 10.7' resid.)
	121912	2	121918	0				113		151B16	2		2	Minor v soft, highly fractured, medium to dark grey, moderately calcareous noncalcareous phyllite. PS <sub>2</sub> foliated, fissile along S <sub>2</sub> local incipient gouge along thin steep fractures. S <sub>2</sub> surfaces shiny dark grey. Minor dolomite in thin gtz-silicate bands. TOT → 295.0 v, broken, fissile, local thin gouge intervals along fractures. recy O.K. 295.0 - EOT rubble due to abundant fractures + thin gtz veins - only 1.6' resid.
	121918	0	121018	7				114		141L16	7	34	minor	(5D4*) (5B64) (10Q0) SS 15 15 15 Med - soft, pale green - grey altered chl + musc phyllite. Contains local minor thin stringers and bands of gtz + ps + sul + sul Est % S <sup>2</sup> 5% Est % Pb Zn 1-2%. S <sub>2</sub> very steep. True thickness at unit much less than drillhole intersection. Unit is highly fractured. 702 - 300.0 is v soft, fissile, pale olive green, dolomitic, altered chloritic phyllite. Highly fractured, local gouge along fractures. 300.0 → 301.4 is light grey, altered, noncalcareous, PS <sub>2</sub> foliated musc phyllite. Abundant patchy "fat" coatings on S <sub>2</sub> fracture surfaces. 305.6 → 306.8 highly fractured, v hard, white

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											pegmatitic gtz vein. Margins are brecciated.
											70E-300.0 v broken, thin coarse intervals // to S <sub>2</sub> . 2.0' rec'd
											300.0-305.0 m broken, rec'd good.
											305.0-FOI v broken, local breccia at margins of gtz vein.
											3.4' rec'd.
	1310B	7	1311R	1				115	14A10		(400 "micaceous") 80:20
				951							70E → 311.4 is med-hard → hard, S <sub>2</sub> foliated, black, carbonaceous gtzite. Sulphide banding is diffuse, poorly developed - defined by gtz >> fine disseminated py and traces of sph + gal. Banding locally ranges up to 3cm thick, // to S <sub>2</sub> . S <sub>2</sub> surfaces shiny black. Abundant X-cutting S <sub>2</sub> steep fractures. Est Pb+Zn 1-2%.
											311.4 → FOI light grey, med-hard to hard, gtz + py banded gtzite. Bands generally 4-1 cm aligned // to S <sub>2</sub>
											gtz-5" banding 30% of unit volume. Only minor sph + gal mineralization within 5" bands. Margins are higher GA + lower SCA sharp // to S <sub>2</sub> . Est Pb+Zn 2-3%. Abundant thin micaceous folia aligned // to S <sub>2</sub> .
											Core intact, rec'd good
	1311R	1	13114	5				116	15C14	@ \$ ± 19 minor	
				959							Buff tan-green, P <sub>S2</sub> foliated, med soft, dolomitic / antiferitic, altered chloritic phyllite. S <sub>2</sub> surfaces dull light tan-green. Local traces of small bright green "fuchsite" specks. Contains local thin gtz + fine py bands generally

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											less than 2mm thick. Likely, originally, thin grained D <sub>2</sub> qtz veins? Margins of altered metabasite sharp,    to S <sub>2</sub> . Core is broken, 2.4' rec'd.
	13114	5	13131	3			117		14A10		<p>Very hard, low grade, black, ribbon banded, carbonaceous quartz (Sa) foliated. S<sub>2</sub> surfaces dull black. Ribbon banding ranges up to 3cm thick - defined by ps+qtz + traces sph+gal. Ribbon banding approx. 30% of unit volume. Est % P<sub>2</sub> 20%, Est % Pb+Zn 2%. Banding    to S<sub>2</sub>. S<sub>2</sub> is steep, subparallel to core axis. True thickness of unit much thinner than drill hole intersection?</p> <p>TOI - 316.5 is broken due to steep fracture, rec'y ok</p> <p>316.5 - 325.0 is broken, rec'y good</p> <p>325.0 - 326.0 rubble, 0.5' rec'd</p> <p>326.0 - FOI is broken, rec'y good</p>
	13121	3	13134	7			118		14E10		<p>Porous. Massive, noncarbonaceous, porous, fine grained quartz sulphides. Banding defined by variations in porosity due to weathered out carbonate bands    to S<sub>2</sub> generally &lt; 1cm thick. Mud hard. Margins    to S<sub>2</sub>. Grade difficult to determine - likely, less than 4% Pb+Zn. Core slightly broken, rec'y good.</p>

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30 34 35				
	131314 7	131318 8 103 3		1119	141D1413	Very high grade, pyritic quartzite. Abundant Sph + Gal ≈ Py ± interstitial grey gtz bands define S <sub>2</sub> and are 60-70% of unit volume. Bands range up to 15 cm thick. Unit is v hard. Est % Py 20-25%, Est PhZn 20-25%. Core is broken, very good.
	1313 8 8	131511 4 107 1		1210	141E14	Porous. v hard, porous, noncalcaneous, massive pyritic sulphides. Banding near H to core axis - defined by higher porosity due to weathered carbonates. Sph + Gal may be more abundant within these bands - however difficult to see. Est PhZn 8-9%? 347-FOI unit is highly fractured, no rotation of S <sup>+</sup> clasts. 102-342.3 v broken due to local fractures, 3.5' vertical 342.3-FOI is broken, very good.
	131511 4	131517 2 108 9		1311	141E10 8	± 4. Porous. Brassy yellow, poorly banded, v hard, fine grained, dolomitic, massive pyritic sulphides. Contains abundant & large angular clasts of tan-orange weathered dolomite. Clasts range up to 8 cm φ and are ≈ 20% of unit volume. Unit locally vuggy due to weathered carbonates. 354.5 → 356.3 contain local PS <sub>2</sub> bands defined by

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20 22 24 26 28 30 34 35					
						higher Sph + Gal concentrations. Bands are dark red-brown, porous and range up to 6cm thick.
						Est % Pb + Zn ranges from 1-2% up to 8-9% between 354.5 + 356.3. Core in broken, very good.
						Bottom 5" of unit brecciated. 5" clasts generally < 1/2 cm elongate // to S <sub>2</sub> . Matrix is fine py.
	13157 2	13161 4 110 2		1212	141E14	Porous.
						Most hard, porous, banded, noncalcareous massive pyritic sulphides. Banding defined by variations in porosity due to weathered carbonate. Grade more concentrated in highly porous bands? Bands are steep, generally, < 2cm thick aligned // to S <sub>2</sub> . Est % Pb + Zn 8-9%?
						Core in broken, very good.
	13161 4	13165 5 111 4		1213	141A14 3	"wuggy"
						High grade, ribbon banded, carbonaceous gtz. Ribbon banding generally, < 2cm aligned // to S <sub>2</sub> defined by Py ± Sph + Gal ± interstitial fine gtz. Banding 60% of unit volume. S <sub>2</sub> surfaces dull carbon black. Unit is highly fractured, S <sub>2</sub> extensively re-mineralized into fractures. Carbonate also originally infilled fractures - has been weathered out forming deep pores.
						Est Pb + Zn 15% Sph >> Gal. Core in broken, very good.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description	
	10	14	16	20	22	24	26	28	30	34		35
	13	15	5	13	18	11	0		12	14	14	Porous.
												↓ hard, locally thin, banded, micaceous, massive sulfides. Banding defined by variations in porosity and local higher concentration of sph + gal. Banding generally < 1cm thick aligned // to S <sub>2</sub> . Unit porous due to weathered cements in matrix and fractures. Unit locally slightly fractured along steep fractures. Est porosity 8-9%. Core moderately broken along local steep fractures. Core good * NOTE Hole shut down due to extreme tightening of rods because of thick quartz vein.
												FOL

Code	From		To (feet)		Feature	S <sub>0</sub> Dip Direct.	S <sub>1</sub> Dip Direct.		S <sub>2</sub> Dip Direct.		Description
	10	14	16	20			28	32	34	38	
			125	15	PSR-			T	T	61	S <sub>2</sub> defined by thin micaceous laminations
			127	15	PSR-			T	T	416	S <sub>2</sub> defined by micaceous lamination. S <sub>3</sub> visible but not good enough to get a proper measurement
			130	15	PSR-			T	T	612	S <sub>2</sub> defined by Py banding
			131	15	LSR2S			25	010	610	micaceous fitns; compositional banding present
			133	10	PSR-			T	T	210	S <sub>2</sub> defined by compositional banding
			136	12	PSR-			T	T	314	S <sub>2</sub> defined by Py-Sph banding
			137	17	PSR-			T	T	517	S <sub>2</sub> defined by Py-Galena banding (massive S <sup>2</sup> present.)
								T	EOH	T	





PROJECT \_\_\_\_\_ DRILLHOLE NO. \_\_\_\_\_ COORDINATES: N \_\_\_\_\_ DATE \_\_\_\_\_ 19\_\_  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE of 2  
 LOGGER \_\_\_\_\_ INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
2.02	2.02			0			5		F								
2.12	5	2.1	42	7			5		F								
2.22	5	2.2	16%	7			5		F								
2.32			34%	1			5		F								
2.42			73%	0			5		F								
2.52			100%	2.15			5		F								
2.62			95%	2.4			5		F								
2.72	2.2	2.7	31%	0			5		F								
2.82	5	2.7	54%	0.45			6		F								
2.92	1	2.8	80%	1.35			6		F								
3.02		2.9	53%	3			6		F								
3.12		3.1	38%	2.5			6		F								
3.22	5	3.2	16%	0			7		F								
3.32		3.3	62%	0			7		F								
3.42	5	3.4	92%	0			6		F								
3.52		3.5	100%	0			8		F								
3.62		3.6	76%	0			6		F								
3.72	2.5	3.7	67%	0			6		F								
3.82		3.8	75%	0			5		F								
3.92	2.1	3.9	56%	0			5		F								
4.02	5.0	4.0	55%	0			5		F								
4.12	5	4.1	50%	0			5		F								
4.22	5	4.2	56%	0			6		F								
4.32	5	4.3	100%	0.9			7		F								
4.42	4	4.4	90%	0			5		F								
4.52	2.5	4.5	75%	1.9			7		F								
4.62		4.6	92%	1.75			5		F								
4.72	5	4.7	100%	2.1			7		F								

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. 1007 COORDINATES: N \_\_\_\_\_ DATE \_\_\_\_\_ 19\_\_  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 1 of \_\_\_\_  
 LOGGER \_\_\_\_\_ INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
322	1	1.1	20%	0														
331	5		100%	2.25			8		L									
325	5		100%	2.1			9		F									
326	5	5	100%	2.45			7		F									
327	5		20%	1			6		T									
328	5	5	100%	2.3			8		F									
329	5	5	100%	3.7			10		F									
330	5	4.3	86%	2.1			7		F									
331	5	4.6	92%	1.7			7		F									
332	5	4.7	94%	3.65			12		F									
333	5	5	100%	2.25			7		F									
334	5	5	100%	3.6			10		F									
335	5	4	100%	1.65			10		F									

Fig. 1. Typical rock mechanics core log.

89-G-26

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-26

Reference Fabric Orientation Diagram:

Project: 1989 Grum FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,380.105 N

6,152.04 N

592,526.172 E

2,801.59 E

Grid Co-ords: 66W / 6-25N

Elevation: 1287.130

All symmetry determinations looking

Total Depth: 426 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -85° to NE

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: \_\_\_\_\_

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	<u>CORE</u> <u>From</u>	To	Collar Cased and Capped: <u>No</u>
------	----------------------------	----	---------------------------------------

Hole Cemented: No Steel down Hole: No

NW 0 140 feet

NQ 140 426 feet

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: AUGUST 13/89 Completed: AUG 19/89

DDH 89G-26  
2 8

Diamond Drill Core Log

Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

Code	Drillhole	Elevation				Northing				Easting				Units (feet/metres)		R.F.E	
		1	2	8	10	16	17	24	25	32	34	39	41	42			
T																	

F E E T

Code	Drillhole	Depth				Zenith Angle	True Azimuth				Comments	
		1	2	8	10	14	22	26	28	32		34
R						100	-1815	0	421	0	AT COLLAR	
R						1255	-1812	0	718	0		
R						1410	-1781	0	761	0		
R												
R												
R												
R												
R												
R												
R												
R												
R												
R												
R												
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R												
R												
R												
R												
R												
R												

Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions														
		1	2	8	10	14	22	26	28	32	34	39	41	42	56	

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	10		11410	0				11		#	TRIMMED - NO RECOVERY
				427							
	11410	0	11410	5				12		#	O/B 10AB Granite Fragment
				428							1 Small cream white plug + gtz > bio + hornblende. 10 AB boulder fragment Fragment 20"
	11410	5	11414	5				13	141610		"stringered" 127 minor
				440							Dull grey-green, PS2 foliated, noncalcareous, altered musc + chl phyllite. Contains abundant thin stringers and bands defined by fine py + interstitial fine gtz bands & stringers are 10-15% of unit volume. S2 surfaces dull grey-green and have local tan-green patchy weathering on S2. Est % Py 6-8%
											Cone mod- broken. Recv good.
	11414	5	11670	0				14	151816		± minor ± 9 minor
				509							Medium- light grey, <sup>dum. + chl</sup> PS2 foliated, mod- soft, noncalcareous, musc phyllite. Contains local thin gtz + dol ± minor dist py siltstone laminae defining S2 and local minor lithons.
											707 - 15' 6 in broken, recv, good.
											151.8 - 163.3 in broken, local minor gneiss along steep, X-cutting S2 fractures. 1.0' core lost.
											163.3 - 107 in broken, recv, good.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	11670		11711	3			5		15B161	2 weak
			52	2						Mud- carbonaceous, dark grey, P <sub>2</sub> foliated, noncalcareous phyllite. S <sub>2</sub> surfaces shiny dark grey - slightly mark fingers. Contains abundant thin qtz + dol siltstone bands and laminae aligned // to S <sub>2</sub> . Dol = fine py and ill local fine fractures. Core in broken, very good.
	11711	3	11716	3			16		14E146 ±# (4A4) (4L24)	80:10:10
			53	7						Dominant unit is mud- hard, medium brown, high grade, locally calcareous, massive pyritic sulphides. Banding defined by local concentrations of honey sph + gal, barite, and calcite. Interstitial calcite occurs in thick bands up to 15 cm aligned // to S <sub>2</sub> . Contains local small subrounded qtz clasts "flooding" in massive S. Clasts generally < 3mm φ
										173.0 → 173.5, hard, highly fractured, ribbon banded, carbonaceous glite. Banding is thin, generally < 3mm defined by <sup>dominant</sup> sph and lesser fine py S <sub>2</sub> extensively re-mobilized into lake thin fractures. Minerals // to S <sub>2</sub> .
										173.5 → 174.0, pale grey-green, mud- soft, yellowed musc + chl phyllite. Abundant fine py + sph in fill thin steep fractures. Minerals // to S <sub>2</sub> . Est % Pb/Zn 6-7%.
										Core S broken, very good - No obvious faults.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
	11716	3	11719	6					17	141K14	Bxa
			54	7							
											Highly fractured, brecciated, high grade, $\bar{w}$ dolomitic semi-massive pyritic sulphides. Contains abundant, large, irregular white dol + gtz clasts ranging up to 15 cm $\phi$ . Within clasts are abundant thin fractures infilled w galena, red-brown sph and fine pyrite. Matrix is fine brassy yellow pyrite. Clasts are 70-80% of unit volume.
											Est Pb:Zn 8-10% High Pb:Zn ratio
											% Pb 20-25%
											Core 5 broken, recov good
	11719	6	11813	1					18	141G14	Bma
			55	8							
											Thin bedded, med hard, massive pyritic/basaltic $S^{\bar{w}}$ Brecciated defined by local concentrations of sph + gal, breccia and fine interstitial dolomite. Contains local small subangular clasts of gtz and dolomite. Clasts generally $\leq 1/2$ cm $\phi$ . Upper contact $\bar{w}$ 4K brecciated. Lower contact sharp // to $S_2$ . Est Pb:Zn 8-10%
											Core med broken along local fracture. Recov O.K
	11813	1	11815	7					19	141C10	"Micaceous" (4AD) 50:50
			56	6							
											TOI $\rightarrow$ 184.1 is light grey, highly fractured, micaceous, med hard, non-micaceous, pyritic gtz. Contains abundant thin lamels aligned // to $S_2$ defined by fine py + minor spherical + interstitial gtz. $S^{\bar{w}}$ have been extensively

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											re-mobilized into thin anastomosing fractures. Bottom missing to 4A is sharp, 11 to S2 184.1 → FOI is hard, thin, ribbon bedded, black, conglomerate gtz. Ribbon banding < 5mm thick, defined by fine py + sph + minor gal + fine interstitial gtz. Locally, bands define lithons. Banding 15% of unit volume. S2 surfaces shiny black. Est $\frac{7}{10}$ Pl + Zn entire interval @ 3-5%. Core in broken along S2, recov good
	11815	7	11911	6			110	416	1012	14	+ Bra + Gnlges (5A169) 90:10 FOI → 186.5 is black, med-hard, conglomerate, siliceous, PS2 foliated phyllite. S2 surfaces shiny black unit is highly fractured. Abundant fine py infills thin fractures. 186.5 → FOI white-grey altered mass. phyllite gorge and breccias locally abundant fractures infilled w white neg. quartz, lesser dolomite + minor py + sph + gal Only 1.2' rec'd between 186.5 and 189.7 One major fracture trends 80° west S2, dipping 31°. FOI → 186.5 rubble 0.9' rec'd 186.5 → 189.7 rubble + gorge, 1.2' rec'd. 189.7 → FOI is broken along S2 + local fractures. recov O.K
	11911	6	11953	3			111	1410	14	(4A4) (5C4 @ 1/2 ginner) 50:35:15 Highly mixed unit. Hardened at 197.0 is 6" thick, white olive green, med salt, dolomite /ankerite / chlorite	

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Unit is mud hard brown-grey. Banding defines S <sub>2</sub>
	121010	9	121013	9			1113		141211	2	
				621							Mud soft → locally hard, white grey, gtz + S = banded altered musc phyllite. S <sub>2</sub> surfaces light shiny grey w local pale green chl chits. Contains abundant P <sub>2</sub> S <sub>2</sub> bands generally less than 1/2 cm thick defined by fine py + minor sph + gal + interstitial fine gtz. Banding 15-20% of unit volume. Micaceous.
											Est Pb + Zn 2-3% MAYBE. Est % Py 8-9%
											Core is broken along S <sub>2</sub> and local steep fractures, recy O.K.
	121013	9	121019	0			1114		141A10		→ [5A169]
				637							→ local to locally mud-soft, P <sub>2</sub> S <sub>2</sub> banded + foliated, ribbed banded carbonaceous gtzite transitional to siliceous, carbonaceous phyllite. Micaceous foliations become more abundant moving down the interval. Bottom 1.5' is moderately soft. Ribbed banding is thin, // to S <sub>2</sub> , defined by fine red- brown sphalerite + interstitial fine gtz, or fine py + interstitial grey gtz. Locally, sph rich bands have disc- fine Py. Banding decreases moving down the interval. S <sub>2</sub> surfaces range from locally medium → dark grey to black. Est Pb + Zn on core interval 3-4% - dominantly Zn TOF → 206.0 is broken along S <sub>2</sub> recy O.K. 206.0 → EOT in broken, recy O.K.

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
	1210	190	1211	155		115	151B16	± 8 minor. Light grey-green, mud with, dominantly, PS <sub>2</sub> foliated, musc + chl phyllite (contains abundant thin white-tan qtz ± chl siltstone bands + laminae defining S <sub>2</sub> , S <sub>2</sub> surfaces are shiny grey in local pale green chl clots. Core is broken along S <sub>2</sub> and local fractures. No obvious faults. Very good		
				657						
	1211	155	1213	127		116	151B16	± 8 minor + 2 minor (5B76 ± 8 minor) Light grey, mud with, dominantly, PS <sub>2</sub> foliated, musc phyllite. S <sub>2</sub> surfaces shiny steel grey. Contains local thin qtz ± chl siltstone bands and laminae generally defining S <sub>2</sub> locally, siltstone bands define microfoliations. Dol inclusions local steep X-cutting fractures. Moving down interval, unit becomes slightly darker due to increasing carbon content. 231.5 → FOI is light grey-green musc + chl phyllite. Abundant. Contact is gradational over 2-4" marked by decreased carbon, more chlorite. FOI - 236.0 in broken, very good 236.0 → 227.5 insipient gorge + lens, very G.K. but a significant fault 227.5 → FOI in broken, very good.		
				709						
	1213	127	1217	138		117	151B12	0 ± 8 minor + 9 minor + "stagnated" Medium dark grey, mud carbonaceous, dominantly PS <sub>2</sub> foliated, locally CS <sub>2</sub> foliated, phyllite S <sub>2</sub> surfaces		
				835						

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											shiny dark grey. Contains local minor thin mudstone detrital by qtz calcite. Thin qtz + minor fine py occur in stringer bands - bands commonly define lithons. Bands range up to 1/2 cm thick. likely pre D2 veins? qtz + ss + calc infill minor local fractures.
											705 → 268.2 in broken, very good
											268.2 → 269.2 v broken, locally gouged along steep fracture, very good
											269.3 → 270.0 mud broken, very good
											Only two thin fractured white argillitic qtz veins occur within interval. No obvious faults.
	1217	8	1314	8			118		151B10		± minor ± q minor ± "stringered" (1000) 95:5 Some as above unit. Broken out due to more abundant fractures and tubular qtz veins. Veins range from 1cm to 25 cm thick, commonly have thin dark green chlorite selvages. Veins generally horizontal, pale green ch, locally minor py, and calcite infill fractures. Virt dominantly P2 foliated. S2 surfaces shiny dark grey.
	1314	8	1318	2			119		141L1	247	"stringered" (504 @) trace Dull light grey-green, locally CS2 foliated, non-continuous. altered (mass ch + biotite) phyllite (contains abundant thin qtz ± py ± spheral ± minor Po stringers - Pre D2 stringers locally have thin white tubular developed along

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											margins. Stringers are 15-20% of unit volume. Po becomes more abundant moving down interval. Est % Py 5-6% Est % Phyl 2n 4-1%
											Bottom 2.0' of unit contains 3 highly fractured pegmatitic gtz veins. Fractures infilled w dark green chln (chl w/co occurs in thin selvages against gtz vein. S <sub>2</sub> surfaces are a cluttered shiny green-grey. Dol + gtz infill abundant local thin fractures.
	131817	2	141216	0			1210		151816		± 9 trace [360] Light gray, locally slight green tinge, noncalcareous, locally (S <sub>2</sub> foliated, musc + chl phyllite S <sub>2</sub> surface medium shiny steel grey. Contains local thin gtz siltstone laminae - locally define microlithens. Qtz + dol infill local X-cutting thin steep fractures. Local lenses of Py + po in local minor thin gtz stringers. 701 → 419.5 mud broken, very good. 419.5 → 420.3 in broken, local incipient gorge near gtz vein margin + along steep fracture, very good. Not a significant fault 420.3 → 422.5 in broken, very good. 422.5 → 423.0 Incipient soft phyllite gorge and dia Gorge contacts 60° to core axis, no orientation possible. Not a significant fault. Very good. 423.0 → FOH mud broken, very good.

FOH

Structural Log

Date: Sept 1/89 Logged By: A. Reznik

Code	From			To (feet)			Feature	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		Description
	10	14	16	20	22	24			26	28	Dip	Direct.	Dip	Direct.	
				1149	-	CIS2S			24	1210	716				micaceous laminations present
				1167	-	AS2-			T	T	518				S <sub>2</sub> defined by compositional banding
				1184	-	CIS2S			313	21815	711				" " " "
				12016	5	AS2-			T	T	813				S <sub>2</sub> defined by sph banding ? compositional banding
				1237	-	CIS3S			<sup>S<sub>3</sub></sup> 75	2915	313				thin silvery laminations define S <sub>3</sub> micaceous laminations present
				12416	-	CIS3S			<sup>S<sub>3</sub></sup> 74	21315	72				thin silvery laminations define S <sub>3</sub>
				1265	-	CIS2S			319	11810	513				S <sub>2</sub> defined by thin micaceous laminations
				12811	-	AS2-			T	T	71				" " "
				13108	5	AS3-			<sup>S<sub>3</sub></sup> 617	T	T				S <sub>3</sub> defined by thin silvery laminations
				13217	5	AS2-			T	T	810				S <sub>2</sub> defined by compositional banding; thin altered musc laminations
				13317	-	CIS3S			<sup>S<sub>3</sub></sup> 217	0213	419				S <sub>3</sub> defined by thin silvery laminations thin compositional banding present
				13519	-	AS2-			T	T	75				S <sub>2</sub> defined by comp banding & thin altered musc laminations
				1392	-	CIS3Z			<sup>S<sub>3</sub></sup> 613	01119	215				S <sub>3</sub> defined by thin silvery laminations
				1412	5	AS2-			T	T	518				S <sub>2</sub> defined by thin comp banding
				1425	5	AS2-			T	T	618				" " " " " "
									- ECH -						



PROJECT \_\_\_\_\_ DRILLHOLE NO. \_\_\_\_\_ COORDINATES: N \_\_\_\_\_ DATE 036 24 1987  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE of 3  
 LOGGER \_\_\_\_\_ INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
142	142	2.2		5					E							0			
147	5	2.9		0.55			7		E								2		
152	5	2.7		0			5		E								0		
157.5	5.5	3.9		0			6		E								0		
162	4.5	3.3		0			5		E								1		
157	5	5		0			5		E								0		
172	5	1.7		1.35			7		F								2		
177	5	5		3.05			7		F								0		
182	5	4.5		2.1			9		F								2		
184	7	1.6		0.5			6		F								1		
189.5	5.5	2		0.7			6		F								0		
194	5.5	3.9		1.45			7		F								0		
200.5	5.5	4.1		2.8			4		F								0		
206	5.5	5.1		0					F								2		
211	5	5		0.9			5		F								0		
216.5	5.5	1.6		0			5		F								1		
221.5	5	5		0.4			6		F								2		
227	5.5	4.9		0.35					F								4		
232	5	4.2		0.35					F								0		
237	5	5		0.85			7		F								0		
242	5	5		0			5		F								0		
247	5	4.7		1.45			7		F								0		
252	5	5		1.9			7		F								0		
257	5	4.8		0.5			7		F								2		
260	3	3		0			6		F								0		
265.5	5.5	5.2		1.15			5		F								1		
270.5	5	4.7		1.3			6		E								0		
276.5	5	5.1		0					F								3		

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. \_\_\_\_\_ COORDINATES: N \_\_\_\_\_ DATE \_\_\_\_\_ 19\_\_  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE of 3  
 LOGGER L. D. P. INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
281.5	5	1.7		0			6		E							1	
285.5	5	5		1.2			6		F							0	
290.5	5	2.0		0			6		F							2	
296.5	5	3.4		3.55			6		F							2	
302	5.5	1.1					5		F							1	
307	5	1.6		0			6		F							1	
312	5	2.2		0			6		F							0	
312.5	5.5	1.8		2.4			6		F							2	
322	5.5	1.5		0			6		F							1	
322.5	5.5	5.4		0			6		E							0	
332	4.5	4.5		1.3			7		E							0	
337	5	5		1.0			7		E							2	
342	5	5		1.05			7		E							1	
347	5	5		1.5			9		E							1	
352	5	4.8		0			6		E							1	
357	5	4.9		2.3			9		E							0	
362	5	4.8		0			6		E							0	
367	5	5		1.95			9		E							1	
372	5	5		1.7			7		E							0	
377	5	4.9		0.4			6		E							0	
382	5	4.9		0.4			6		E							0	
387	5	5		1.7			7		E							0	
392	5	5		1.4			9		E							1	
397	5	5		2.95			9		E							0	
402	5	5		2.2			7		E							0	
407	5	4.9		2.25			7		E							0	
412	5	5		3.3			9		E							0	
417	5	5		1.4			7		E							2	

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. DDH89G26 COORDINATES: N \_\_\_\_\_ DATE Aug 30 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 3 of 3  
 LOGGER G. GRUBISA INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
422	5	4.8		0.9			6		E									
426	4	3.9		0.45			6		E									
									ECH									

Fig. 1. Typical rock mechanics core log.

89-G-27

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-27

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,880.105 N

6,152.04 N

592,526.172 E

2,301.59 E

Grid Co-ords: 66W / 6+25 N

Elevation: \_\_\_\_\_

All symmetry determinations looking

Total Depth: 560.5 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: - 60° NE

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: \_\_\_\_\_

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>NW</u>	<u>0</u>	<u>132 feet</u>	
<u>NQ</u>	<u>132</u>	<u>560.5 feet</u>	

Hole Cemented: No Steel down Hole: No

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 20/89 Completed: August 22/89



DDH B.G.-27  
2 8CURRAGH RESOURCES INC.  
Lithologic LogPage 03Date: SEPT 28/81 Logged By: P. L. L. / C. Reed

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
		0	1,32	0				11		#	TXICONED No RECOVERY
			40	2							
?	11316	0	11516	0				12	151B	G14	± \$ minor - moderately weathered
			47	5							
											- highly fractured + broken, mod. soft, non calc.; dom. PS2 fol
											- light grey w local orange rust on S2 + cut surface
											- where fresh S2 cleavage dull light to shiny grey - minor dol
											interstitial to qtz in thin PS2 siltstone bands
											- local minor gouge along steep fractures
											- T01 - 145.6 - Rubble - 7.8ft recov.; 145.6 - 154.1 - v. broken - recov 0%
											154.1 - E01 - Rubble
	11516	0	11518	0				13	14A	11A	(5C4#) (4D0) 33/33/33%
			48	2							
											T01 - 156.6 - Black, hard, carb. ribbon banded qtzite top
											contact // S2; comp. banding defined by dom. sph, lesser Gn, minor Py
											Sulfide bands 30% unit vol. - lower contact against S2 sharp
											// S2
											Remaining interval very hard thinly banded non-carb qtzite
											int-banded w m soft calc pale green-grey alt. metabasite - Metabasite
											band range from 8-15 cm, margins // S2 - Sulfide banding defines
											3 phase 2 fold hinges. Est. Pb/Zn for entire interval 6-8%
											- Mod. broken - recov. good

DDH 89-G-27  
2 8CURRAGH RESOURCES INC.  
Lithologic LogPage 4Date: 28/09/89 Logged By: PL

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	11518	0	11647	7				14	14641		±# ±\$ (4L0) 50/50%
			50	2							
											<p>T01 - 159.2 ; 169.9 - E01 : Thinly PS2 banded - m hard locally calc. high-grade massive barritic/pyritic sulphides - comp. banding defines S2. Banding &lt; 1cm thick defined by variations in Ba, P<sub>g</sub>, Sph + Gr content - "floating" within sulphides are small local sub-rounded white Qtz + dpl. clasts - Near E01 contains local broad feathery bands containing interstitial Ca</p> <p>- Between the 2 mass sulphide bands is pale cream tan mod. soft, altered musc. phyllite - S2 surfaces dull whitish grey + have "talrose" coatings - Contacts against 4G highly broken + bracediated</p> <p>4G is slightly broken - 4L is rubble - good recov. Est. sulphide grade in 4G - 18-20% Pb+Zn</p>
	11647		11719	8				5	151616		\$ minor
			54	8							
											<p>- light grey - mod. soft, non calc. musc. phyllite - dominant PS2 foliated - local minor lithons defined by Qtz + dpl</p> <p>- local traces of P<sub>g</sub> + Sph. infilling of fractures</p> <p>- pale green chlorite in thin lamination near T01 defines S1 + S2</p> <p>T01 - 165.6 Rubble due to steep fracture ; 165.6 - 168.0 mod. broken ; 168 - 171.5 - v. broken ; 171.5 - E01 mod. broken</p> <p>- recov. good</p>

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Lithologic LogPage 5Date: 28/09/89 Logged By: PL

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	117.9	8	119.0	0				16	464#	(5C4\$) (5B6) 93/5/2 %	
			57	9						464# - Thinly banded, high grade calc. massive pyritic/basic sulphide/sulphate - banding thin // S <sub>2</sub> defined by variations in barite + base metal content - Calcite occurs in thin feather bands interstitial to sulphides (// S <sub>2</sub> ) - Sulphides contain suspended small rounded Qtz + del. clasts. Interbanded w/ sulphides at scale of 2-10cm are local pale green PS <sub>2</sub> foliated dolomitic altered musc + chl. phyllite, presumably metabasite - Margins of metabasite sharp // S <sub>2</sub> Est. Pb+Zn 12-15%	
										TOI - 181.0 very broken due to steep fracture; 181-182.5 - slightly broken - good recov.; 182.5-184 - very broken recov. good; 184-184.9 - intact; 184.9-186.7 - very broken; 186.7 - EOI - med. broken.	
										lft lost in interval	
										-184.9-185.4; 186.3-186.5 - thin bands of light gray non-calc. musc. phyllite - margins // S <sub>2</sub> - may be phyllite clasts within massive sulphides	
	119.0	0	119.8	9				17	5B6\$ ±4	CS <sub>2</sub> foliated, med. gray, slightly carbonaceous mod soft phyllite. S <sub>2</sub> surface medium shiny gray - local lithons defined by Qtz + ch. laminations - Bottom 5" is "bleached" to lighter gray - core very broken - recov. good	
			60	6							

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	199.8	9	200.1	1				18	141614	± 4	464# ± BXA
			6' 0"								V. hard thinly PS2 banded, v. calc., pyritic baritic m. sulphide Top contact // S2; bottom cont. brecciated - At EOI is 2" band coarse remobilized massive sphalerite w/ local angular fine Py clasts. Bottom contact appears to be faulted TOI - 199.6 - intact; 199.6 - EOI - v. broken -; Recov. good. Est Pb+Zn 18-20000
	210.0	1	210.2	8				19	51B16102	± 9	minor ± \$ {5062}
			6' 8"								Med dark grey - PS2 fol, slightly carbonaceous phyllite. S2 surface shiny med. dark grey. Top 5" contain thin Sph+Zn bands // S2 Pb+Zn < 1% - contains local minor dol. within thin qtz. siltstone lam. Core very broken along S2 Recov. good
	210.2	8	225.6	6				110	151B612	± \$	minor
			68 6"								PS2 foliated - dark grey, med. carbonaceous, non calcareous phyllite - S2 surface shiny dark grey + slightly marks finger. Contains local dol. within thin qtz. siltst. laminations locally siltstone lam. to thin lithons - med. soft TOI - 205.6 - rubble 1ft core lost; 205.6 - EOI - very broken along S2 - recove good - minor insipient gorge

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	225	0	232	7					111	5A110	(5B3 Bio) (5B62 ±\$) 33/33/33%
				70							
				9							
											Highly mixed unit
											T01 - 231 - dark grey PS2 foliated non calcareous
											phyllite - same as unit 10 Interbanded in this
											unit are 2 x 15cm thick bands of very calcareous
											thinly CS2 laminated biotitic phyllite - calcite is
											ubiquitous. Within bio-rich bands are local thin
											qtz rich lithons. S2 surface dark brown/grey - Margin
											of bands // S2 Bands are centered at 227.3 + 230.5
											231-EOT - very hard black thinly PS2 laminated
											siliceous carbonaceous phyllite. S2 surfaces dull black
											contains local thin qtz + calcite bands // S2
											Unit v. broken - recov. good.
	232	7	234	9					112	5B161	± BXA
				71							
				6							
											Light grey w slight green tinge, PS2 foliated, non calcareous
											musc- phyllite, S2 surface shiny light grey.
											Bottom 1.5ft abundant highly fractured + brecciated peg.
											qtz veins. Surrounding phyllite also fractured + brecciated -
											qtz v. 2-8cm. Dolomite + chlorite infills fractures in veins
											Core slightly broken - recov. good.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	234	9	2410	0					113	5B0216	± 1 ± \$ minor
			73	2							
											Dark grey, med soft to locally hard, thinly PS <sub>2</sub> laminated, mod. carbonaceous, non calcareous phyllite. Contains local bands up to 5cm thick w/ abundant interstitial fine qtz - margins of silicified intervals are sharp // S <sub>2</sub> . Silicified bands 20% unit volume. S <sub>2</sub> surface shiny dark grey. Contains minor local dol within thin qtz. siltstone bands. Locally defined lithons.
											T01 - 236.2 V. broken, recov. good
											236.2 - EOF Mod. broken, recov. good.
	2410	0	2718	8					114	5B02	± \$
			84	8							
											Mod soft, dominantly PS <sub>2</sub> foliated, locally slightly calcareous, med-dark grey phyllite. Contains local thin qtz ± calcite ± dol siltstone bands + laminations. Locally bands define microlithons - S <sub>2</sub> surface shiny med. to dark grey. No obvious faults
											T01 - 273 - very broken along S <sub>2</sub> + local fractures
											Good recov.
											273 - EOF - mod. broken, good recov.
	2718	6	288	6					115	4D4	\$ minor.
			88	0							[4E14 16 ± \$ minor]
											V. hard - Thinly banded to massive, pyritic massive sulphide. Upper contact sharp // S <sub>2</sub>

Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
												Where banded, bands define S <sub>2</sub> . Has 3-5% sub-angular to sub-rounded brecciated 2mm to 2cm clasts of qtz./dol. Bottom contact gradual defined by appearance of barite. Locally have 3-5cm "clasts" of fig. Py in base metal rich matrix. Entire unit is weakly broken + mod. fractured sub-parallel to CAX. Fractures filled w/ calcite. Good core recover. Est. 18-20% Zn+Pb
	2886		2948						116	41641		\$ minor
												V. hard pyritic, baritic, high grade sulphide. Thinly banded // S <sub>2</sub> - Compositional banding of Sph + Gn, Py + barite + qtz. locally bands are folded (S fold) slightly - Barite is associated w/ minor qtz + dolomite. Has 2-3% 2mm to 1cm sub-angular to sub-rounded clasts of qtz/dol. Top contact is gradual + defined by appearance of barite. Lower contact is sharp // S <sub>2</sub> . Unit very weakly broken - mod. fractured sub-parallel to CAX - fractures filled w/ calcite. Good core recover. Est Zn+Pb - 18-20%

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Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
	12914	8	13010	6					117	15B416			9. minor, ± \$ (5D4 - gouge) ± \$ 50/50%	
				916										
													5B40 - Vesett light grey/green, slightly brecciated chloritic phyllite. Light grey/green on S <sub>2</sub> plane. Minor sphalerite laminations within 6 in of upper contact - Tr-1% diss Py blebs + fig. anhedral Py throughout. S <sub>2</sub> defined by light green and grey compositional irregular laminations of chlorite + muscovite. Local 0.5cm - 2cm Qtz. blebs stretched // S <sub>2</sub> . Qtz/dol blebs within 6" of upper contact. Upper contact sharp // S <sub>2</sub> lower contact rubble. T01-296.6, mod. fractured - good core recovery 5D4 - Gouged chloritic altered phyllite - probably altered metabasite. Powdery + light grey green. "Talcose" + shiny light green on S <sub>2</sub> surface. Upper contact rubble. Last 4" is white altered dol. rich in 5% anhedral Py blebs. Lower contact sharp // S <sub>2</sub> Core is rubble + powdery - core recovery good.	
	13010	6	13050	0					118	14D04			± \$, minor 2 (4E48 ± \$) 60/40%	
				930									Dominant - Mod hard PS <sub>2</sub> laminated light to dark grey sphalerite bearing Qtzite. Laminations defined by Qtz rich bands, sphalerite laminations + med grey v. weakly carbonaceous bands. S <sub>2</sub> planes are shiny - light to med grey + stain fingers - lightly. Non calcareous	

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
											<p>Lesser - v. hard banded pyritic, dolomitic, high grade magnetite bearing massive sulphide. Bands of Py and Sph/Gn define S<sub>2</sub>. Sph/Gn bands have v. f.-grained sub to anhedral specks of Py. Minor magnetite specks. Local Qtz/dol blebs + veinlets stretched // S<sub>2</sub></p> <p>Entire interval is moderately broken and is very weakly fractured.</p> <p>Upper contact is sharp + parallel to S<sub>2</sub></p> <p>lower contact is brecciated but sharp and is parallel to S<sub>2</sub>. At upper contact have 7" of massive sulphides.</p> <p>At lower contact have 1.2" of massive sulphides.</p> <p>In both areas massive sulphides grade into sulphide rich quartzite.</p> <p>Core recovery good. Est. Pt+Gn 5-10%</p>
	3050		3150		118		119		1518416		<p>+ 7 minor BXA ± 1</p> <p>v. soft light beige to light green laminated non calcareous musc. chlorite phyllite. S<sub>2</sub> defined by compositional laminations of chl. + musc. local laminations of Py // S<sub>2</sub>. Minor brecciated Qtz chlorite veins with dolomite infilling of fractures.</p> <p>Veins ≤ 5cm Upper contact sharp + weakly brecciated parallel to S<sub>2</sub>.</p> <p>305.0 - 308.0 local areas of very altered &amp; broken</p>



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Code	From		To		Recov.		No.		Unit		Description	
	10	14	16	20	22	24	26	28	30	34		35
										21	CINTD1.	of veins is weakly brecciated + often rubbly
												Lesser soft PS2 foliated med green/grey and brown biotite-rich, calcite-rich phyllite, chlorite + biotite laminations define PS2 - Minor qtz/calcite veinlets. wallrock is weakly folded. This sub-unit lies at 347.0 - 349.5 + grades back into the dominant unit. T01 - 340.6 med. broken - good recov. 340.6 - 341.5 - strongly broken - good recov. 341.5 - E01 - med. broken - good recov. entire unit is weakly fractured. Upper contact gradational - lower contact sharp + // S2
	351		353							22	SIB716	±\$ (SB4) 90/10%
												Soft PS2 laminated chloritic, non calcareous phyllite. Weakly dolomitic locally. Med. green, shiny silvery green of S2 planes. Minor qtz veinlets w/ dol infilling of cracks. veinlets // S2 Upper + lower contacts consist of 4-5 cm of altered weakly calcareous very highly broken (almost powder) light green chloritic phyllite. Upper + lower contacts sharp + // S2 Entire unit is med - strongly broken weakly fractured + has good recovery.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	135	137	136	139					23	5B6	# minor
			112	1							
											Soft PS2 laminated med. to dark green chloritic non calcareous (except locally) phyllite. Local 10cm area is weakly calcareous. 5% 0.5 - 10cm Qtz, del., chlorite veins w 1% Py. Veins // S2. Light to med. gray/green on S2 surface. Upper contact sharp + // S2 - Lower contact is gradational. Entire interval mod broken + mod fractured. Good core recovery.
	136	139	137	138					24	5B6.104	(5B6) 80/20
			114	8							
											Dominant - Soft PS2 laminated light to medium green / khaki non calcareous phyllite. Minor $\leq$ 2cm Qtz, chlorite, del veinlets w tr-1% Py. veinlets // S2. Light shiny silvery gray on S2 planes.
											less - Soft PS2 laminated med to dark green chloritic non calcareous phyllite - Same as unit 23. This entire interval represents a transition zone from unit 23 to unit 24. T01 - 374.0 - Mod broken + fractured - good recov. 374.0 - EOT - Strongly fractured, good recov. Interval is weakly fractured.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	37	8	410	0			25		4L61		\$minor 'stringer' (Sb24) 95/05%
			121	9							
											Dominant Visoff PS2 laminated musc rich, weakly chloritic, weakly dolomitic, med green/whalti phyllite. S2 planes are light greenish silver + shiny + talcose. Care light grey powder on finger. PS2 defined by composition banding of chlorite rich + musc. rich bands + laminations. Tr stringer of Pg // S2 Local 0.5cm to 10cm qtz / dol and/or siderite/ankerite veins + fracture fillings of weakly brecciated areas. Minor stringers of Pg + qtz // S2. Some of fb qtz/carb. veinlets have chlorite.
											Lesser Visoff PS2 foliated med. grey, weakly carbonaceous non calcareous, weakly chloritic. S2 planes med grey + shiny. Rock is slightly sugared. Is softer than dominant interval, local lithons define S1
											Upper contact of entire interval is sharp + // S2 Lower contact is gradational + is a transition in colour from a greenish beige colour to a predominant beige colour.
											T01 - 389 - strongly broken - weak fault gouge at 378.6-379.1. Weakly fractured - good recovery
											389 - EOT - weakly to med broken, weakly fractured. Good recovery

Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20 22	24 26	28 30	34 35					
	141010	0	141519	6			1216	4E101			\$ minor "stringer" ± \$
			140	1							V. soft PS <sub>2</sub> foliated light khaki beige w light green tinge, muscovite rich, non calcareous phyllite. S <sub>2</sub> plane is light grey to white + "talc". PS <sub>2</sub> defined by light beige + slightly dark beige muscovite rich laminations. 2-3% Py stringers parallel + sub-parallel to S <sub>2</sub> . In these stringers amfibole/siderite are also present. Local gouged powder white areas. T01-402.6 - weakly broken - good recov. 402.6-439.5 - V. strongly broken - several 1-2 ft. gouge areas. Lost 2ft of core in that interval. 439.5 - E01 - weakly to mod. broken - very broken at 451.5-453.6. + 455.7-E01. Good recov. Entire interval is weakly to mod. fractured. Upper contact gradual - lower contact sharp // S <sub>2</sub>
	141519	6	14168	3			1217	5161621			± 4
			142	7							Soft PS <sub>2</sub> foliated - med. grey to med khaki (depending on musc. content) weakly carbonaceous, weakly muscovitic, non calcareous phyllite. Rock is more beige in areas where there is more musc. (10% of core). S <sub>2</sub> planes are shing light grey/green to white. Minor Py filled fractures. T01-E01 weakly broken, weakly fract. - good recov. Upper contact gradual - lower contact gradual. Marked

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											by appearance of base metals
	46	83	47	64			12	8	5B	1012	9 minor $\pm$ 1 $\pm$ bio
											Soft to hard PS2 foliated med. to dark grey, weakly carbonaceous, non calcareous musc. rich phyllite Has local areas w/ minor bio. Med. to dark shiny grey on S2 surfaces. 1-2% 0.5cm - 10cm qtz veins w/ ank/sid-fracture fillings. These veins contain 3-5% Pyt Pot Gn + cpy. Core is siliceous & can't be scratched w/ a nail locally. Rocks v. weakly broken & weakly fractured. Good recov. Upper contact grade. Lower contact sharp & // S2
	47	164	48	149			12	9	14L	101	Minor BxA
											PS2 foliated light grey w/ khaki tinge, more rich non calcareous v. soft phyllite. Locally breated & has lithons which define S1. Small fold nose (// CAx) at 478.00 - 479.0. Minor qtz/dol/ank/sid. veinlets // S2 w/ minor Py. Upper & lower contacts sharp & // S2. Mod. broken except for fold nose which is gauded. High grey/green & shiny on S2 plane. Good recov.

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16	20 22 24	26 28 30	34 35	
	1484	1487		310	4D4	<p>{4A0}</p> <p>Hard PS<sub>2</sub> laminated blocks, carbonaceous, strongly siliceous sph/Gn bearing qtzite. PS<sub>2</sub> is defined by compositional laminations of dark carbonaceous pelite, white 2mm ellipsoidal bedding qtz laminations + sphalocite laminations. Rock is mod. fractured - These are filled w/ qtz/ant/sid./del. veinlets w/ minor Py. Minor folding observed. Upper contact is sharp + // S<sub>2</sub>. Lower contact is brecciated, folded + qtz/Fe carb infilled w/ 5-10% sph+Gn. This occurs over last ft. Rock is mod. broken + mod. fractured over entire interval. V. broken at 85.6 - 86.8. Good core recovery.</p> <p>Est. Pb+Zn 3-5%</p>
	1484	1487	1487			
	1490	1493		311	4E4	<p>§</p> <p>High-grade, hard thinly banded dolomitic massive sulphides. Compositional banding of sph/Gn + Py define S<sub>2</sub>. Has minor brecciated qtz/del/ant/sid. veinlets + clasts w/ sph/Gn, Py + tr. Cpg.</p> <p>701-488.4 - v. whly broken } 488.4 - EOI - strongly broken } Good recovery.</p> <p>Est. Pb+Zn - 18-20%</p>
	1490	1493	1493			

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Code	From			To			Recov.	No.	Unit	Description
	10	14	16	20	22	24				
	14910	3		14916	4			1312	141A141	{4A0}
				151	3					Hard PS <sub>2</sub> laminated black, carbonaceous, non calc., strongly siliceous sph/Gn bearing quartz - Same as unit 30. locally lithons define S <sub>1</sub> . Mod. to strongly fractured - Non calcareous. Est Pb+Zn 2-3% Black on S <sub>2</sub> surface. Mod fractured w quartz infilling as veins up to 10cm wide w 5-10% sph/Gn Minor Py in rock - Upper + lower contacts broken but sharp - Good recov.
	14916	4		14919	9			1313	141E141	8 minor porous (4D4) 70/30%
				152	4					Dominant - Porous, high-grade, soft to hard compositionally banded, magnetite + sph/Gn bearing, pyritic massive sulphide. Is soft where more porous. Is folded in S fold + this defines S <sub>1</sub> . Fold runs sub parallel to CAX. In between folds have lesser unit.
										Lesser - Hard laminated black carbonaceous, siliceous, non calc., str. sil. qtz. of unit 32. Compositional banding defines PS <sub>2</sub> lower 1.7 ft. of entire unit is folded qtz./dol brecciated veins up to 20cm intercalated w massive sph/Gn bearing massive sulphides. Rocks weakly to mod. broken - mod. to str. fractured. Good recov - Est Zn+Pb ~12-15%

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Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
1	49.99		525.6				134		41A41		BXA ± S ± (4E04) (4L0) stringer 79/20/1%
			160.2								
											Dominant- PS2 laminated hard black carbonaceous, non calcareous pyritic, Gn/Sph bearing Qtzite. Compositional banding of carbonaceous black pelite, Qtz bands + massive Pg w minor Sph/Gn define PS2. Lesser unit is actually thick sulphide bands within Qtzite. Bands as large as 0.9 ft are found Pg band are weakly dolomitic in fractures. Local minor brecciation in Qtzite. Entire unit is strongly broken - except at S26.5 - E01 where rock is weakly broken. Core recov good except between S05 - S10.5 where 1.5 ft is lost. Est. Pb+Zn - 5-10%. At S24.0 - S24.4 have lense of soft light bluish weakly dolomitic musc. rich PS2 foliated phyllite w 1 stringer of Pg. Upper contact sharp + // S2. Lower contact marked by beginning of brecciated area + lesser amount of black carbonaceous bands.

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Code	From				To				Recov.	No.	Unit	Description	
	10	14	16	20	22	24	26	28					30
	5.25	6	5.33	1						35	40.4	BXA ± 5 minor	
			162	5								PS <sub>2</sub> laminated pyritic, Sph/Gn bearing, siliceous, hard, non calcareous, locally brecciated quartz. Has minor carbonaceous bands. Where brecciated have ~60% sulphides, dominantly pyrite. Banding is not as obvious as unit 34. Sulphides consist of 40-50% of core. Est Pb+Zn - 5-10%. Upper contact is beginning of BXAion. Lower contact sharp but next unit is rubble. Bxated over 60-70% of core	
												TO1 - 529.5 whly broken 529.6 - 601 v. strongly broken } Good recov., mod. fractured	
	5.33	1	5.43	3							316	5A116	9 minor
			165	6									Hard, PS <sub>2</sub> laminated black, siliceous, carbonaceous, weakly Sph/Gn bearing, non calcareous phyllite. PS <sub>2</sub> defined by black graphitic band, & qtz bands + minor Sph/Gn laminations. S <sub>2</sub> plane dark grey & easily smudges finger. Lithons locally. Upper contact rubble but sharp. Lower contact gradual. Noted by increase of qtz bands & almost complete decrease of Sph/Gn.
													TO1 - 537.4 - Rubble 537.4 - 601 mod. broken 0.5ft lost within unit. Est Pb+Zn - 2-3%



Code	From		To (feet)		Feature	S <sub>0</sub> Dip Direct.	S <sub>1</sub> Dip Direct.		S <sub>2</sub> Dip Direct.		Description			
	10	14	16	20			22	24	26	28		32	34	38
			11516	-	AS1			216	TT	T				micaceous fitns present.
			11618	-	PS12			T	T	79				S <sub>2</sub> defined by thin laminations & also thin altered musc laminations.
			1192	-	PS12			T	□	67				comp banding present.
			12075	-	PS12			T	T	61				comp banding present.
			12132	-	PS12			T	T	47				thin micaceous laminations define S <sub>2</sub>
			12418	-	PS12			T	T	60				" " " " " "
			1256	-	PS11			58 613	□	T				S <sub>2</sub> defined by thin silvery laminations
			12713	-	CS12			412	01010	60				S <sub>1</sub> strongly developed & defined by thin laminations.
			131018	-	PS12			T	T	86				S <sub>2</sub> defined by thin altered musc laminations
			13118	-	PS12			T	□	68				S <sub>2</sub> defined by thin micaceous lamtns
			13425	-	CS2S			48	01215	63				" " " " " "
			1362	-	PS12			T	T	61				S <sub>2</sub> defined by thin laminations
			136165	-	CS2S			50	01710	70				Thin micaceous laminations present
			13919	-	CS2S			317	3118	70				" " " " " "
			14102	-	PS12			T	T	76				S <sub>2</sub> defined by thin 'altered' musc laminations
			1432	-	CS2S			43	01215	70				S <sub>2</sub> " " " " " "
			14416	-	PS12			T	□	73				" " " " " "
			14617	-	CS2S			310	3125	57				Thin micaceous laminations present.
			1492	-	CS2S			38	01815	75				" " " " " "
			15102	-	PS12			T	T	74				S <sub>2</sub> defined by P <sub>4</sub> banding. Late fractures present approx 1cm long & angled at 15°
			151155	-	CS2S			417	01010	57				S <sub>2</sub> defined by Sph; P <sub>4</sub> banding.
			15418	-	CS2S			39	1120	83				S <sub>2</sub> defined by P <sub>4</sub> banding
			15517	-	CS2S			414	01210	78				micaceous fitns present.
								T	EQH	□				

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
10	04 16 47 20	22 0 25 28 30 32 34 36 40 42					
	11560	11580	37353	20	20	13A4	(5C4#) (400) 33/33/33%
	11590	11613	37354	33	33	4G4	±#±\$ (4L0) 50/50%
	11613	11647	37355	34	30	4G4	±#±\$ (4L0) 50/50%
	150.2	154.8				WASTE	
	11798	11849	37356	51	48	4G4#	(5C4\$) (566) 93/5/2%
	11849	11900	37357	51	50	4G4#	
	157.9	160.6				WASTE	
	11989	20001	37358	112	112	4G4.54	
	20001	20028	37359	117	117	5B60.2	±9 minor ±\$
	161.8	184.8				WASTE	
	2781	2816	37360	35	35	40.4	\$ minor
	2816	2851	37361	35	35	40.4	
	2851	2886	37362	35	35	40.4	
	2886	2917	37363	31	26	4G4	\$ minor
	2917	2948	37364	31	31	4G4	
	2948	2989	37365	20	20	5B46	9 minor
	90.5	91.6				WASTE	
	3006	3050	37366	44	44	40.4	±\$, minor 2, (4E48±\$) 60/40%
	93.0	147.8				WASTE	
	4849	4879	37367	30	30	40.4	
	4879	4903	37368	24	23	4E4	
	4903	4934	37369	31	31	4A4	
	4934	4964	37370	30	30	4A4	
	4964	4999	37371	35	35	4E4	8 minor (4D4) 70/30%
	4999	5040	37372	41	41	4A4	BxA ±\$ ± (4E04)(4L0) string 79/20 1%
	5040	5090	37373	50	42	4A4	
	5090	5154	37374	50	38	4A4	
	5140	5180	37375	40	40	4A4	
	5180	5220	37376	40	40	4A4	
	5220	5256	37377	36	36	4A4	
	5256	5294	37378	38	36	40.4	BxA ± 5 minor
	5294	5331	37379	37	37	40.4	
	5331	5382	37380	51	51	5A1.6	9 minor
	5382	5433	37381	51	43	5A1.6	9 minor
	5433	5475	37382	42	42	5A1.6	9 minor
	5475	5504	37383	29	29	5A1.6	9

167.8 170.8 — 0 — EOH WASTE

PROJECT \_\_\_\_\_ DRILLHOLE NO. DDH89 G27 COORDINATES: N \_\_\_\_\_ DATE Aug 30 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 1 of 4  
 LOGGER G. GRUBISA INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
136.5	136.5	0.2		0			5		C							0		
141	4.5	2.2		0			5		C							0		
145	4	2		0			6		D							0		
150	5	4.8		0.4			6		E							2		
155.5	5.5	5		0.75			6		D							3		
161	5.5	5.2		1.95			7		E							1		
165	4	3.6		0.8			7		E							0		
170	5	4.7		0			6		E							2		
175	5	4.8		2.1			7		F							1		
181.5	6.5	6.3		2			7		F							3		
184	3.5	3.3		0.65			7		E							1		
191.5	7.5	7.1		1.9			7		E							1		
196.5	4.5	4.2		0			6		E							1		
198.5	2.0	2.0		0			6		F							1		
201.5	3.0	3.0		0.5			6		F							1		
203.5	2.0	2.0		0			6		F							0		
205.5	2.0	1.8		0			6		F							0		
207.5	2.0	2.0		0			6		F							1		
209.5	2.0	2.0		0			6		F							0		
214.5	5.0	3.5		0			7		F							2		
218	3.5	3.5		0			6		F							1		
222	4.0	3.7		0			6		F							3		
226	4.0	3.3		0			6		F							1		
228.5	2.5	2.3		0			6		F							1		
231	2.5	2.0		0			6		F							1		
236	5.0	5.0		1.35			8		F							2		
241.5	5.5	5.5		0.7			7		F							0		
246	4.5	4.5		0			7		F							2		

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. DDH-896-27 COORDINATES: N \_\_\_\_\_ DATE Sept 1/89  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 2 of 4  
 LOGGER A. Reznik INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DEP.		BEDDING JOINTS		CRACK JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
251.5	5.5	5.5		0			7		F							1			
257	5.5	5.5		0			7		F								2		
262	5.0	5.0		0			7		F								3		
266	4.0	3.8		0			7		F								1		
271.5	5.5	5.5		0			7		F								2		
273	1.5	1.3		0			6		F								0		
278.5	5.5	5.5		1.3			8		F								3		
284	5.5	5.5		1.7			9		F								3		
289	5.0	5.0		4.2			10		F								1		
294	5.0	5.0		2.7			10		F								2		
299.5	5.5	3.7		1.3			9		F								0		
305	5.5	5.5		1.5			8		F								4		
310	5.0	5.0		.35			8		F								3		
315	5.0	5.0		0			7		F								2		
320	5.0	5.0		.35			7		F								2		
325	5.0	5.0		0			7		F								1		
331	6.0	5.8		.75			7		F								2		
336.5	5.5	5.0		.70			8		F								1		
342	5.5	5.5		.70			8		F								1		
347	5.0	5.0		.75			8		F								2		
351.5	4.5	4.5		.35			7		F								2		
356.5	5.0	5.0		0			7		F								1		
361.5	5.0	5.0		.35			8		F								1		
367	5.5	5.5		1.5			8		F								2		
372	5.0	5.0		0			7		F								2		
377	5.0	5.0		0			7		F								1		
382	5.0	5.0		.9			8		F								1		

Fig. 1. Typical rock mechanics core log.





89-G-28

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-28

Reference Fabric Orientation Diagram:

Project: 1989 GRAM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,836.758 N

6,211.16 N

592,407.030 E

2,689.37 E

Grid Co-ords: 68 W / 2+00 N

Elevation: 1278.595

All symmetry determinations looking

Total Depth: 367 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -55° to NE

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: Dr. faulted away

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: \_\_\_\_\_

Hole Cemented: No Steel down Hole: No

Size	CORE From	To	Collar Cased and Capped:
<u>NW</u>	<u>0</u>	<u>148</u>	<u>No</u>
<u>NQ</u>	<u>148</u>	<u>367</u>	

148 feet

367 feet

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 22/89 Completed: Aug 26/89



CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.	No.	Unit	Description
	10	14 16	20 22 24	26 28	30 34 35			
	10	14 16	20 22 24	26 28	30 34 35	11	#	TRILONED - NO RECOVERY
								148 ? 116180 451
	116180	117120				12	#	Cream-white, mod weathered O/B 10-13 boulders + fragments. Boulders range up to 1.2' $\phi$ local brown mod clay + O/B pebbles rec'd. 6.1' rec'd.
								524
	117120	119145				13	15B1612	± 8 minor ± GOUGE (1000) (504 @) 85 10-5. Dominate unit is dark grey, thin, PSA foliated, mod soft, micaceous, mod calcareous phyllite. Sa surface shiny medium grey. Local minor dolomite occurs within thin gtz-siltstone bands. Unit slightly weathered. Flaky gouge 182.0 → 185.5 Gouge appears to be near // to Sa. 189 → 191.0 white pegmatitic gtz vein. Margins fract. 194.0 → 194.5, soft, pale green, wateritic?, chloritic phyllite fragments. Largest piece rec'd, 1" $\phi$ . TOI → 182.0 Rubble, 2.4' rec'd. 182.0 → 185.5 Rubble and gouge, 3.1' rec'd. 185.5 → 188.2 V. broken, very good. 188.2 → FOI Rubble 3.9' rec'd.
								593
	119145	121181				14	15B1610	± 2 ± B10 minor (1000) minor Light to locally dark grey, locally (Sa) foliated, mod soft, micaceous, mod phyllite. Sa surface wavy
								665

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											From shiny light grey to dull dark grey. Unit becomes lighter moving down the interval. Contains abundant local thin incipient coarse intervals - remnants of gouge generally // to S <sub>2</sub> . Local minor biotite developed in thin laminations defining S <sub>2</sub> . 198.7 → 198.7 v broken, local thin gouge intervals 7.0' spread out rec'd 198.7 → 203.4 v broken, very good 203.4 → 213.5 in broken, very good 213.5 → 602 v broken, local thin gouge intervals, very O.K.
	121181		121200					15		14A10	Rubble v hard, carbonaceous, ribbon banded qtzite rubble largest intact piece 1.5" φ. Unit highly fractured. Ribbon boundary thin, generally < 2mm, extensive re-mobilization of S <sub>2</sub> into fractures. Margins of 4A gouged - may be start within large fault zone? Est Pbr 2-3%? Core is rubble 1.3' rec'd
	121210		121251					16		15B1612	Noncarbonaceous, dark grey, mud-soft, P <sub>S2</sub> foliated phyllite. S <sub>2</sub> shiny dark grey. Top contact against 4A slightly brecciated. Local fine pyrite fractures at contact. v broken, very good P <sub>S2</sub> foliated.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	12125	1	12120	5				17	141210		± "STRINGERED"
			70	3							Light buff-grey, med soft, PS <sub>2</sub> faulted, altered mass > chl. shaly like. S <sub>2</sub> light shiny silver-grey. Contains local thin "stringers" of gtz ± py ± minor sph + gal. Local thin fractures filled w/ gtz ± dol. Core is broken, very good. Local minor go-gs 229.3 → 229.6.
	121310	5	12140	5				8	141210		Bra (46124 Bra) 50:50
			73	3							TOI → 235.5 Highly broken & fractured, light grey, med soft → hard, sulphide bearing, altered shaly like breccia. Locally waxy due to weathering of carbonate? in fractures. Abundant sulphide - dominantly fine py + sph in fill fractures. S <sub>2</sub> highly disrupted along abundant late fractures. Est Pb + Zn 5-6% dominantly Zn. 235.5 → TOI Highly fractured and broken, locally gossed, med hard, light grey, sulphide breccia qtzite. Banding ranges up to 2cm thick // to S <sub>2</sub> retired by sph > py + interstitial fine gtz. S <sub>2</sub> extensively re-mobilized into late thin fractures. TOI → 337.5 is broken, local thin gouge intervals, highly brecciated. Only 4.3' rec'd 337.5 → FOI gouge + rubble, 0.6' rec'd.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121410	5	121415	5				19	141A10		(4EO) Bxa (5B26) Bxa ± GOUGE 50:40:10
			74	8							Dominate unit is mod hard, locally vuggy, black, ribbon banded noncalcareous phyllite. PS <sub>2</sub> foliated. S <sub>2</sub> surfaces can be black. Abundant tan green weathering coatings on fracture surfaces. Breccia thin, diffuse, defined by py >> sph + gal + interstitial glz. Bands of fine gr. are about 25-30% of unit volume. Est Pb + Zn 3-5% MAYBE. 4A occurs from 242.9 → EOT TOI → 242.2 is highly broken, vuggy, rusty, massive Py sulphides breccia. Vuggy due to weathered calcareous in fractures. Abundant rust in pores + fracture surfaces. Py clasts angular, range up to 2" Ø, fine py + minor glz infill fractures. Est Pb + Zn 3-4%? TOI → 242.3 Rubble + Bxa 1.2' void 242.0 → 242.7 is mod soft, dark grey → black, noncalcareous, mod calcareous phyllite, PS <sub>2</sub> foliated highly fissile along S <sub>2</sub> . Local incipient gouge in thin intervals // to S <sub>2</sub> . Margins in S <sub>2</sub> units are brecciated. v broken, 0.7' void. 242.7 → EOT v broken along abundant, like, steep, kinking fractures Recv, O.K.
	121415	5	121537	7				110	151B1416		GOUGE (5B360) Bxa ± GOUGE (5L4@) Trace. TOI → 250.4, v soft, light white-grey, noncalcareous flakes phyllite gouge. Core is gouge 1.4' void A significant fault?

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Top 2" of unit is P <sub>52</sub> laminated, pale green altered metabasite. Ankeritic? margins    to S <sub>2</sub> .
											250.4 → FOE, $\bar{v}$ soft, dark grey, highly fractured, noncalcareous, moderately carbonaceous phyllite. Bottom 0.6' light grey + locally gassed. Fractures trend nearly // to core axis. Core is brecciated + gassy, 3.1 ft. void.
											Bra
	121513	7	121516	5			111	141414	15	(4A44) Bra. (4E4)	50:40:10
				702							FOE → 254.5, highly fractured, locally waxy, $\bar{v}$ hard, $\bar{v}$ high grade, carbonaceous g <sub>1</sub> tzite. Abundant red-brown silt infills fractures and forms matrix surrounding ribbon banded carbonaceous g <sub>1</sub> tzite clasts. Local late fracture infilled w/ fine py. clasts angular, irregular shape, v. coarse up to 5cm $\phi$ . Est P <sub>1</sub> +Zn 20-25% - dominantly Sph.
											254.5 → 256.0 Highly fractured, $\bar{v}$ high grade, $\bar{v}$ hard, S <sup>2</sup> banded g <sub>1</sub> tzite. Banding defined by abundant fine sph + gal + lesser py. Sulphides extensively re-mobilized into fractures. Locally waxy due to weathering of carbonate in fractures. Est P <sub>1</sub> +Zn 15-20%
											256.0 → FOE is light brown, homogeneous, fine grained py + sph + gal massive S <sup>2</sup> . Lower contact w/ 4A15 bra'd.
											Est P <sub>1</sub> +Zn 15-20%
											Core $\bar{v}$ broken, 3.9' void. Minor incipient g <sub>1</sub> tzite at
											235.8 → 236.1.

Code	From				To				Recov.	No.	Unit	Description
	10	14	16	20	22	24	26	28				
	121516	5	121648	8					112	11101910	(5B26) Bra 955 Locally highly fractured, pegmatitic qtz veins. Locally waxy due to weathering out of carbonate in fractures. Local patchy rust in fractures. Contains local "clasts" of black, carbonaceous phyllite. 259.3 → 259.9 is v soft, dark grey, carbonaceous phyllite bra. Core v broken 2.0' core loss.	
			807									
	121648	8	121690	0					113	151B1610	2 ± GOUGE Medium dark grey, highly broken + fractured, mud soft micaceous, locally gouged phyllite S2 surfaces medium → dark shiny grey. Contains local thin highly broken qtz vein "clasts". Core v broken v local thin incipient gouge. 2.6' rec'd.	
			820									
	121690		121740	0					114	14K101	±6 "stringered" (5D4@) minor. Buff grey-green to locally green-grey, mud soft, micaceous, P2s foliated, <sup>altered</sup> musc + chl phyllite. Contains locally abundant thin qtz + py ± minor sph + gal stringers aligned // to S2. S2 clefted buff green-grey. Mud soft. Bottom 1.5' highly fractured - minor incipient gorse along fractures. Top 2" of unit is dull olive green, carbonaceous? / chloritic phyllite band. Margins // to S2. Core mud broken along S2. Heavy ground.	
			835									

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	12714	0	12187	9				115	14A10		
				87 8							
											<p>Dark, black, v hard, locally highly fractured, ribbon banded carbonaceous gtzite. (S<sub>2</sub> foliated + banded Ribbon banding) → diffuse defined by gtz + py. Qtz = P<sub>1</sub> in bands. Bands 30-35% of unit volume only, traces of spl + sil in bands. Bands range up to 2cm thick - define both S<sub>1</sub> + S<sub>2</sub>. S<sub>2</sub> surfaces carbon black. P<sub>1</sub> content ~ 20%.</p> <p>70I → 284.0 v broken, very good</p> <p>284.0 → FOI in broken, very good.</p>
	12187	9	12191	9				116	14A10	Bxa	(504 + "fuchsite") 70:30
				89 0							
											<p>FOI → 289.3 v soft, bright green, antiferitic? / chloritic? porous, P<sub>2</sub> laminated altered metabasite. Abundant bright green "fuchsite" in thin laminations    to S<sub>2</sub>. Muscovite in 4A micaceous</p> <p>289.3 → FOI highly fractured + broken, brown, black ribbon banded carbonaceous gtzite. Same as # 15. Abundant re-mobilization of pyrite into thin fractures. Fe + Pb = 1%.</p> <p>Cone is visible + bxa, 4.5' rec'd</p>
	12191	9	12194	9				117	14C15	Bxa	
				89 9							
											<p>Med- carbonaceous, dark grey, low grade, highly fractured and broken, v hard, py banded gtzite breccia. "inherent" fault rock. Abundant re-mobilization of py into fractures. Banding consists of fine py aggregates + abundant</p>

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											<p>fine interstitial gtz. To Pk + z = &lt; 4% P<sub>g</sub> = 15-20%</p> <p>V broken, very o.k</p>
	121914	9	13106	0			118		141E4		<p>± 1 ± porous (4043) (4A03Bca) BS: 15. TRACE.</p> <p>Dark brown, thickly, P<sub>2</sub> banded, V hard to locally soft + friable, high grade massive pyritic S<sup>=</sup>. Micaceous - Carbonate has been weathered out - unit locally porous as result. Banding defined by variations in red brown sph, gal and locally by interstitial fine gtz content. Within gtz-rich bands, gtz &lt; 10% of unit volume. Locally vuggy due to weathering out of carbonate in fractures. Bands range up to 15 cm thick, define S<sub>2</sub>.</p> <p>294.2 → 300.5, very hard, vuggy, high grade, thickly, P<sub>2</sub> banded quartzite. Banding defined by <sup>fine</sup> sph → py "microblocky" texture in bands. Bands range up to 3 cm thick    to S<sub>2</sub>, S<sup>=</sup> bands 50-60% of unit volume. Margins in massive py, silicates and brecciated ductile flow textures at margins. Vuggy due to weathering of carbonate in fractures.</p> <p>305.7 → EOI highly fractured fragment of barren ribbon banded carbonaceous gtz breccia. Banding defined by fine py + gtz, S<sub>2</sub> randomly orientated. Major fractures + gorges <sup>dipping</sup> 34° to core axis, no orientation possible.</p> <p>Massive S<sup>=</sup> brecciated, highly friable + gassed at this contact.</p> <p>Bottom of massive S<sup>=</sup> cut off BY FAULT.</p>

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From				To				Recov.	No.	Unit	Description
	10	14	16	20	22	24	26	28				
												Est Pkt Zn 16-20% for entire interval.
												701-305.5 5 broken, very good
												305.5-701 rubble + pzc 0.7' rec'd spread out
	1310	160	1311	12		119				GP U161E	+ Bzx	
				95	2							v soft, dark grey-black, locally tan-green, micaceous phyllite gouge + breccia. Bottom 1.0' of interval are highly fractured, med- carbonaceous, micaceous phyllite breccia fragments. Largest piece rec'd 1/2" d.
												Core is gouge + rubble 2.0' rec'd.
	1311	12	1312	15	8	1210				V131610	±2 minor (54@#) minor	
				99	3							Highly broken and fractured, dominantly P <sub>S2</sub> foliated, micaceous medium to locally dark grey phyllite. Med- soft. S <sub>2</sub> range from shiny steel grey to dull dark grey. Contains locally abundant thin foliation gtz veins. But inhibits local fractures in gtz veins.
												Near 701 is 4" thick band of pale green, soft, ankeritic chlorite altered metabasite. Margins // to S <sub>2</sub> . Thinly P <sub>S2</sub> laminated.
												Core v broken, 11.1' rec'd
	1312	15	1313	16	9	1211				G10 U161E	± Bzx	
				102	7							Medium dark grey, flakey, micaceous, moderately carbonaceous phyllite gouge and breccia. S <sub>2</sub> in local angular clasts random, orientated

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											A significant fault? Mangers at gauge not rec'd Core is gauge + base - 6.1' spread out rec'd.
	131316	9	131516	1			1212		151B1610		± minor ± B10 Finally some half decent rock! - moving away from fault zone. Locally (S <sub>2</sub> ) foliated, locally biotitic, locally dolomitic, noncalcareous, light grey musc. phyllite. Biotite occurs locally, in intervals up to 2' thick within thin laminae defining S <sub>2</sub> and local lithons. Also occurs <sup>locally</sup> in thin selvages to qtz-silstone laminae. S <sub>2</sub> surfaces medium shiny grey. Abundant & locally thin, resorptive qtz vein "sweats". Locally have thin pale green chl selvages. Dolomite occurs locally in broad bands <sup>with musc</sup> and in thin laminae. Bands range up to 15 cm thick. Laminae generally define S <sub>2</sub> . Top 25' slightly brecciated. TOI → 339.7 $\bar{E}$ broken, $\bar{E}$ brecciated, very good. 339.37 FOZ $\bar{E}$ broken very good - no faults
	131516	1	131613	2			1213		151B1616		Locally (S <sub>2</sub> ) foliated, dark grey to locally black, mud- soft, mud-carbonaceous phyllite. S <sub>2</sub> shiny dark grey contains local minor thin qtz-silstone laminae - locally define lithons. Non-calcareous TOI - 359.0 - mud broken, local minor base near

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From				To				Recov.				No.				Unit	Description
	10	14	16	20	22	24	26	28	30	34	36	1	2	3	4			
																	thin gte veins, recr. O.K.	
																	359.0 $\rightarrow$ EOF mud broken, recr. O.K.	
	13613	2	13617	0					1217	1416							+3 + B10	
			111	9													Light grey-green-brown "stained" locally w/ calcareous and biotitic, altered chl + bio $\rightarrow$ musc phyllite. Contains locally abundant biotite <sup>+chl</sup> in thin laminations defining S <sub>2</sub> . B10 rich intervals associated w/ abundant interstitial calcite. S <sub>2</sub> surfaces are a clotted dull grey-green. Local thin gte stringers contain minor diss <sup>-</sup> py. Unit slightly broken, recr. good. No faults.	
																	FOH	





PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER PL

DRILLHOLE NO. 89-G-28 COORDINATES: N \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 30/09/1989  
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**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
162		4.0		1.6			7		C								0.B.
172		2.3		0.4			2		D								0.B.
182		2.8		0.0			1		B								
185.5		3.3		0.5			6		B								
190		4.4		0			6		C								
198		6.3		0.4			6		B								
202		4.3		0			6		D								
206		4.0		0			6		D								
209		3.6		0			6		E								
215.5		6.6		0.9			7		E								
220		4.5		0			6		C								
222.5		3.3		0			6		C								
226		3.1		0			7		D								
230.5		4.9		0.9			7		D								
235.5		2.3		0.4			6		C								
240.5		2.8		0			5		C								
242		1.4		0			5		B								
248.5		4.0		0			7		C								
254		5.4		1.6			9		D								
259		5.8		0.8			7		D								
264		6.2		0			6		D								
269		3.5		0			6		C								
274		4.9		0			7		E								
279		5.2		0			6		F								
289		11.5		2.0			7		F								
293		4.1		0			6		E								
294		1.0		0			0		D								
299		5.5		4.0			6		E								

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER PL

DRILLHOLE NO. 89-G-28 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 30/09 1989  
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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
304		5.5		3.4			6		E								3		
309		2.7		1.0			5		D									5	
315.5		4.5		0			6		D										10
320.5		4.6		0			6		D										10
326		2.5		0			6		D										5
331.5		1.8		0			2		D										5
335.5		3.6		0			2		C										5
339		2.5		0			6		D										3
342		2.5		1.2			10		F										2
347		5.2		2.0			11		F										4
352		5.1		3.3			11		F										0
357		4.7		3.6			12		F										1
362		5.3		0			9		E										1
367		5.5		1.2			9		F										4

Fig. 1. Typical rock mechanics core log.

89-G-29

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 896-29

Reference Fabric Orientation Diagram:

Project: 1989 GRAM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,756.075 N

6,154.19 N

592,410.710 E

2,632.06 E

Grid Co-ords: 66W / 0+ N

Elevation: 1276.647

All symmetry determinations looking

Total Depth: 542 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° VERTICAL

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: \_\_\_\_\_

Reason hole Terminated: Drilled through ore

Logged by: Peter Ledwidge

Date(s) Logged: Oct 1-3 / 1989

Drilling Contractor: ARCTIC

Size	<u>CORE</u> From	To	Collar Cased and Capped: <u>No</u>
------	---------------------	----	---------------------------------------

Hole Cemented: No Steel down Hole: No

NW 0 163 feet

NQ 163 542 feet

Assay Lab: Northern Analytical

Certificate No's: \_\_\_\_\_

Started: Aug 26/89 Completed: August 29/89

DDH 8.9.G.-2.9.  
 2 8

Diamond Drill Core Log

Date: \_\_\_\_\_ Logged By: \_\_\_\_\_

Code	Drillhole	Elevation	Northing	Easting	Units (feet/metres)	R.F.E
I	2 8 10	16 17	24 25	32 34	39 41 42	
T						

FEET

Code	Drillhole	Depth	Zenith Angle	True Azimuth	Comments
I	2 8 10	14 22	26 28	32 34	56
R		100	-91.0	0	AT COLLAR
R		12250	-1818.0	0	SPIERRY ISUM
R		13750	-1818.2	0	261.0
R		15250	-1817.0	0	261.0
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					
R					

Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions
I	2 8 10	56
		BIFIDRICKI IATI IIGI FIEIIT

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	100		163	205					1011		Triconed oB - no return
	116	3		49							
	116	6	5	116	70				1012		Ground 10A/B boulders - white speckled intrusives.
				50							
	116	7	0	119	26				1013	5B2164	\$ minor ± 1
				58							
											Soft PS2 laminated carbonaceous, non calcareous
											weatly dolomitic, locally weatly siliceous, med.
											grey phyllite. S2 planes are shiny med. grey
											+ sawdge fingers weatly. Laminations of light grey
											musc., dark grey carbonaceous bands, + qtz/dol bands define
											PS2. Folding is prevalent and PS2 is shallow
											to parallel to CAx.
											T01-175 - Crushed powdering at least 3.5ft lost
											175-177.5 - vibration - good recov.
											177-182 - Crushed + powdering - 3ft lost
											182-189 - vibration - good recov.
											189-189.5 - crushed - 0.5ft lost
											189.5-192 vibration good recov - upper contact sharp + // S2
	119	26	209	3					1014	5A1641	\$ minor
				638							
											Hard to soft (where weathred) black carbonaceous,
											non-calcareous, locally dolomitic, siliceous, strongly
											weathered phyllite - PS2 is defined by laminations
											of qtz/dol bands, black carbonaceous bands. S2 planes

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
								core greasy black & easily smudge fingers. Rock is v. strongly broken to crushed throughout interval. Interval is folded. PS2 changes frequently from steep to sub parallel to CAX. Lithons define S1 locally.		
	2097		2145			1015	S1A161411	q minor ± 9		
			654							
								Same rocks as unit 4 but have 2 areas (209.8-210.3; 214.0-214.5) where there is a 1cm wide band of Sph/Gn sub-parallel to CAX. All other core characteristics are identical. Very broken to crushed - good recovery Pb+Zn est. at ≤ 1%		
	2145		2185			1016	S1A161411	Same as unit 4. No sulphides. Very broken to crushed - Good recovery.		
			666							
	2185		2273			1017	S1A161411	q minor.		
			693							
								Same black graphitic, mon calc., locally dol., siliceous phyllite as unit 4. This is more tightly folded into lithons. These contain qtz veinlets w Py. These define PS1. Total Py content is 1-2% of core. As we approach lower contact (at 226.0 - E01) veining % increases & Py content of rock is 3-5% w tr Sph/Gn. This unit is strongly broken - core recov. good Lower contact is gradual & is marked by transition of sulphide rich rock to massive sulphide. Upper contact		

Code	From	To	Recov.	No.	Unit	Description
	10 14 16	20 22 24	26 28 30	34 35		
						is marked by appearance of Py in qtz. veinlets. It is relatively sharp + occurs over 4 to 5 cm. Est. Pb/Zn content - trace
	227 3	231 0		108	4E1416	\$ minor PS2 banded hard, high grade, barite bearing, wdsty, del., pyritic, Sph/Gn bearing massive sulphides. Predominant colour is brassy w minor maroon bands + siliceous barite bearing bands. These define PS2 which varies abruptly from v. steep to sub-parallel throughout interval. This indicates folding. Bands range in width from several mm's to several cm's. Upper contact is rel. sharp + occurs over 4-5 cm. Lower contact is sharp but is broken. Entire interval is strongly broken. Core recovery is good.  Est - Pb + Zn 15-18%

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	23110		23149						1019	4E41	6 minor.
			716								Thinly to moderately thickly banded, very high grade, hard, pyritic, Sph/Gn bearing, locally weakly barrite bearing massive sulphides. PS <sub>2</sub> is defined by brassy Py bands and maroon Sph/Gn rich bands. These bands vary from 0.5cm to 10cm and are not well defined. All sulphides are v.f.g. but there are f.g. euhedral Py grains throughout which is not banded. 3-5% sub-angular to subrounded clear & milky qtz clasts floating within sulphides. Some are stretched & form veins // S <sub>2</sub> . PS <sub>2</sub> is quite regular & at steep angle to CAX. Upper contact sharp but broken, lower contact sharp but broken. Core is mod. broken. Recov. good Est. Pb+Zn content 20-25%
	23149		23419						110	4E41	6 minor, BXA
			737								Brecciated, pyritic, weakly dolomitic, Sph/Gn bearing, high grade massive sulphides. In situ brecciation is noted as some pieces can be fitted together. Core

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											consists of 60-70% brassy py dominant brecciated material The 'fractures' are filled by dark brown/maroon Sph/Gn rich sulphides. TOI - 237.7 v. broken & crushed } 237 - EOI - wkly broken. } Good recov.
											lower contact gradual - Marked by weaker brecciation to no brecciation & appearance of higher % age of Sph/Gn. as well as appearance of barite. Est Zn + Pb 10-12%
	2411	9	2620	0			111		416	111	\$ minor, ± BXA
			799	9							Hard PS2 banded, non calc., wkly dol., baritic, siliceous pyritic, Sph/Gn bearing, locally brecciated massive sulphides. Sph/Gn rich band, Py rich bands, Ba + qtz bands define PS2. Bands vary from several mm's to several cm's. Locally rock is wntly brecciated similarly to unit 10. PS2 changes frequently from steep to parallel - suggests folding. Lower contact is marked by appearance of chlorite and/or fuchsite rich bands. Core is mod. broken at TOI - 253.8, 253.8 - EOI - it is strongly broken Core recovery is good throughout.

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20	22 24 26 28 30 34 35				
	2620	2783 848		112	4E4\$1	±6, ±1, ±9 (SD 1\$4) 95/5 %
						Dominant - PS <sub>2</sub> banded, hard, pyritic, dolomitic, Sph/Gn bearing, non calcareous massive sulphides. Banding defines PS <sub>2</sub> & is composed of Py-rich bands, and Sph/Gn rich bands. Py-rich bands compose 60-70% of core. Bands range from mm to several cm's. and vary in orientation. Locally there gtz/basite bands. Core is pervasively dolomitic. Weakly fractured w/ gtz/dol. infilling. Tr. Cpy spots locally.
						Host - PS <sub>2</sub> laminated apple green chlorite and/or fuchsite + musc. phyllite interlaminated w/ gtz/dol. laminations. May be an altered metabasite.
						Entire interval is mod. broken except at 264.7-266.1 where it is v. strongly broken. Core recov. is good. Lower contact sharp & // S <sub>2</sub> . Est Pb+Zn 15-18%
	2783	2813 863	2	113	5A111	±9, \$ minor
						Mod. hard PS <sub>2</sub> laminated black non-calc., silicified graphitic phyllite. S <sub>2</sub> plane is black & shiny & easily smudges fingers. Black carbonaceous bands & silica/dol. bands define PS <sub>2</sub> . Core is mod weathered.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											± is med hard to soft because of this. Interval highly broken into "pulver chips". Core recov. good. Tr. - 1% Py within gtz/dol bands. CAX semi-sleep at T01 + shallow near E01. Lower contact sharp but broken.
	1283	2	2933	3				114	4E411		BXA, \$ minor ± 6
											Hard PS2 brecciated pyritic, Sph/Gn bearing, dolomitic, high grade massive sulphides. Is same as unit 10, but cannot see that pieces fit together. Sph/Gn rich sulphides fill cracks of Py rich brecciated matrix. Py rich sulphides 70%, Sph/Gn rich sulphides 30%. Core is porous. Weakly broken good recov. Barite/gtz bands locally. Lower contact is sharp + is marked by good banding + increase in Ba. Est. Pb+Zn 15-18%
	2933		2970	0				115	4G411		\$ minor
											Hard PS2 banded baritic, wkly dolomitic, Sph/Gn bearing, non calc., high grade massive sulphides. Mm to seven cm Sph/Gn rich, Py rich, + Ba/gtz bands define PS2. Minor ant/sid. found w/ gtz/Ba. Core weakly to mod. broken - Good recov. Very similar to unit 11. Est Pb+Zn - 18-20%

Code	From	To	Recov.	No.	Unit	Description
1	10 14	16 20	22 24	26 28	30 34	35
	29.70	30.59		116	4E14\$1	±BXA (5D1\$4) 75/25%
		93 2				
						Dominant - PS2 banded, locally brecciated, hard, pyritic, dolomitic, non-calcareous, Sph/Gn bearing high grade massive sulphides. Banding of Py & Gn/Sph rich sulphides define PS2. Poorly banded & brecciated over 50% of core.
						Lesser - Same as lesser unit of unit 12. I apple green chlorite and/or fuchsite + musc phyllite w qtz dol. bands. Laminated // S2. locally is v. weathered & almost a powdery fault gouge.
						Entire unit is similar to unit 12. Is white to mod. broken & has good core recov. Lower contact is 10 cm qtz/dol vein w 3-5% Sph/Gn. Est Sph + Pb 18-20%
						Note: Above units depict repetition of units 10, 12, & 12 & suggests folding
	31.059	32.29		117	5B16121	\$minor PS2 laminated light to dark grey w black lam, white dol., carbonaceous, non calcareous phyllite. Black carbonaceous, white qtz rich & beige musc. rich bands define PS2 which varies from semi-steep to sub-parallel to CAX. S2 planes are shiny
		98 4				

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											silvery grey + easily smudge fingers. Between 317.0 - 318.8 have several 1-5 cm qtz veins // Sz. Rock is strongly broken, often in "potter chips". Lower contact sharp + // Sz
	322	9	331.5	5			118		1416101		\$ minor, "stringer" (4E4 \$ minor) 75/25 %
			102	3							Dominant - PSZ laminated soft very light grey, "talouse" musc. rich w/ky dolomitic altered phyllite. Sz plane is white to light beige + shiny + soft. Musc, qtz, + py stringer bands define PSZ. Local slightly sheared areas are very soft.
											Lesser - Hard, pyritic, sph/grn rich, weakly dol., high grade massive sulphide. Grn is predominant over sph + gives rock a grey colour. Sub-angular to sub-rounded qtz/dol clasts float within sulphides. Sharp broken, lower contact.
											310 - 331.4 strongly broken - good recov. 331.4 - E01 v. strongly broken. Good recov. this + next unit: 2 sheared zones (in dom. unit) at 330.3 - 331.1 + 34.0 - 334.5) Est Pbt Grn - 4-5%

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	335	5	3514	1			119		51A161	\$ minor (4E4 \$ minor) 80/20 %
			107	9						
										Dominant-PS2 laminated mod hard to mod soft, non calc. w/ly dol., carbonaceous black w white bands, phyllite. S2 plane is black + smudges fingers w ease. PS2 defined by carbonaceous + qtz dol. laminations.
										Lesser - Same as lesser unit in unit 16. Is hard pyritic w/ly dol. high grade, Gn/Sph bearing massive sulphides. Is upper contact of entire unit (335.5-336.5). At this location is rubble.
										T01 - 350.5 - V. broken + locally is rubble
										341 - 345 - 1.5 ft lost ; 345 - 350 - 0.5 ft lost
										350.5 - E01 - V. broken - no rubble - good recov.
										Est. Pb+Zn - 3-5%
	3514	1	3635	5			120		51B1012	\$ minor
			110	8						
										V. soft PS2 lamination, muscovite rich, mod. carbonaceous med to dark grey phyllite. Musc. - rich, carbonaceous rich + qtz dol rich bands define PS2. Mod. fractured w qtz infilling fractures. S2 plane is med grey + shiny + smudges finger w light grey powder. Upper + lower contacts gradual. Mod. broken - good recov.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	3163	5	4113	0					211	5A161	1 minor (5 B6, 2 minor) 60/40 %
			125	9							
											Dominant - Mod. hard to mod. soft PS2 laminated black, to non-calcareous, carbonaceous weakly dol. phyllite. S2 planes are black & stain fingers black. PS2 is defined by black graphitic laminations & qtz laminations. Lithons define PS1 locally.
											Lesser - Med. grey soft PS2 laminated musc. rich, weakly dolomitic, weakly carbonaceous phyllite PS2 plane is med grey silver & shiny smudges fingers grey.
											Entire interval is v. strongly broken - Fault gorges at 397.7 - 399.9; 411.3 - 412.8. Upper & lower contacts gradual
	4113	0	41310	2					1212	5A161	2 minor, 1 minor
			131	1							
											Soft PS2 laminated musc. rich, non calc., wtkly dol. wtkly. carbonaceous, med to dark grey phyllite. S2 planes are med to dark grey & smudge fingers w/ a light grey powder. PS2 is defined by light grey musc > qtz rich bands & dark grey carbonaceous bands. Core is mod. to strongly weathered. Have fault gorge at 428.8 - 501 & as a result at 427.5 - 428.8 the rock is light grey & v. strongly sericitized. At 423.0 - 423.4 S2 is parallel to AX & rock is v. shaly.

DDH 89-G-29  
2 8CURRAGH RESOURCES INC.  
Lithologic LogPage 14Date: 3/10/89 Logged By: PL

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											PS <sub>2</sub> is v. shallow at 425.0 - 426.1 & rock is sheared & friable. Upper contact is gradual. Lower contact is sharp but gouged. Core is very broken. Recov. good.
	4310	2	4315	5			23		4E14		(4L0) 60/40 %
			132	7							Dominant - Massive non-banded pyritic, sph/Gn bearing non-calc. massive sulphides. Has 5% sub-angular to sub rounded Qtz/dol clast floating within. Rock is quite weathered & med. fractured. Contacts w/ lesser unit are sharp.
											Lesser - Highly weathered, v. musc. rich, non calc., v. soft, light grey w/ lentic bands, phyllite. PS <sub>2</sub> defined by light grey & lentic musc. rich bands. Foliation changes frequently from shallow to parallel to CAX - S folds w/ an amplitude of several cm's are noted. Rock is very weathered & is very friable.
											Entire interval is med to strongly broken - Good recov. Est Pb+Zn - 5-10% Upper & lower contacts sharp but gouged.

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
	143	15	5	146	2	3	1214	5186104	2 minor (5A6) 95/5 %	
				140	9					
									Dominant - V. soft PS <sub>2</sub> laminated, non calcareous, musc. rich weakly carbonaceous light to med grey phyllite. S <sub>2</sub> surface is shiny silvery med grey - PS <sub>2</sub> defined by light grey musc. rich bands, qtz bands & dark grey wkly carbonaceous bands. CAX is shallow to very shallow.	
									Lesser - Black carbonaceous, non calc phyllite - S <sub>2</sub> planes black & smudge fingers black. Rock is more strongly broken than dom. unit. At 442.1 - 444.5 is gouged.	
									Entire int. is strongly broken. 0.7 ft lost between 453-458; 0.5 ft lost between 458-462. Other wise recov. good. Core is gouged at 457 - E01. Upper contact sharp & // S <sub>2</sub> Lower contact sharp but gouged. Qtz-calc. veins 481 - E01 within surge.	
	146	2	3	148	0	3	215	4101491	± 5 (4E4) 95/5 %	
				146	4					
									Dominant - High grade PS <sub>2</sub> well banded pyritic, Sph/Gr bearing, siliceous, Cr bearing, non calc. quartzite. Sulphide	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>content ~ 60-70%. Py rich bands + sph/Gn rich bands + qtz. bands define P52 which remains constant + shallow. 1% Cpy blebs are on the core. These are not parallel to S2 ∴ they must be post D2. At 474.3-477.4 there are 2-3% black carbonaceous bands // S2</p> <p>Occasional qtz./dol./act./sido. sub-ang. to sub-rounded clasts within fractures. These reach up to 3-4 cm</p> <p>Lesser - Very high grade sph/Gn rich, pyritic, poorly banded, non calc. massive sulphide. Py rich + sph/Gn bands define P52. This sub-unit is at 466.0-467.7.</p> <p>Entire int. is med to strongly broken - w/ky to med fractured. 463.0-465 lost 1.0 ft. Rubble from 465.0-466.0. Rest of recov. is good.</p> <p>Upper contact sharp but gouged (previous unit). Lower contact sharp - marked by beginning of brecciation.</p> <p>Est Pb+Zn - 10-15%</p>
	1480	3	1494	0			1216	410	411		<p>± BXA, ± Sminor (4L0) 99-11%</p> <p>Dominant - Hard, siliceous brecciated or banded pyritic, sph/Gn bearing; non calcareous. quartzite. Rock is brecciated over 60% of core + banded elsewhere!</p>

Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
												<p>Breccia consists of angular to rounded pyrich fragments in a siliceous matrix w some angular qtz fragments. When banded siliceous rich bands + sulphide rich bands define PS2. Rock is med. fractured + these are filled by qtz/dol. Locally has minor carbonaceous bands.</p> <p>Lesser - PS2 foliated strongly weathered white w greenish tinge, strongly muscovitic, wtkly chloritic phyllite. White w green tinge on S2 planes.</p> <p>Gauged over entire sub-interval - 495.9 - 496.4</p> <p>Entire interval is strongly broken. Rubbly at 481.4 - 483.7; 484.5 - 486.2; 487.2 - 488.0</p> <p>Good core recov. lower contact sharp but broken</p> <p>Est. Pbtzn - 10-15%</p>
	494.0		522.0						217	51B1216		<p>\$ minor (SA609) 97/3"</p>
			1591									<p>Dom - Soft PS2 laminated musc. rich, carbonaceous med. grey, non calcareous, wtkly dolomitic phyllite. PS2 is defined by compositional banding of carbonaceous bands + musc. rich bands + qtz rich bands. CAx is very shallow to parallel. Rock is strongly weathered except at 509.0 - 512.5. S2 plane is med. to dark grey + shiny. smudged finger med. grey. 3.0 ft. lost between 495 - 502'</p>

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>Lesser - Mod. hard, black, weakly pyritic, non calc., carbonaceous phyllite. PS<sub>2</sub> laminated. Dull black. S<sub>2</sub> surface greenish black + smudges fingers dark grey. Tr. py in qtz rich bands // S<sub>2</sub></p> <p>Entire interval is strongly broken + very friable + composed of chips except at 509.0-512.5 where it is not friable. Bottom contact marked by appearance of qtz veins.</p>
	512.20		514.20				218		S1B16102		<p>PS<sub>2</sub> foliated, soft, light grey musc. rich, weakly carbonaceous, non calcareous phyllite. Musc. rich light grey bands + weakly carbonaceous med. grey bands define PS<sub>2</sub>. S<sub>2</sub> plane is shiny silver grey. CAX ranges from steep to parallel + folds can be noted. 10% qtz/dol/ant/sid veins up to 20 cm long in 2-3% of area noted // S<sub>2</sub> (longer veins are // S<sub>2</sub> // CAX) Upper contact is noted by appearance of veins + slightly lighter core. Core is very broken + weathered + is in "poker chips" or blades throughout. Good recovery.</p> <p>542 EOH</p>

DDH 87-G-29  
2 8

CURRAGH RESOURCES INC.  
Structural Log

Date: 05/10/89 Logged By: P. Tedwidge

Code	From				To				Feature	S <sub>0</sub> Dip Direct.	S <sub>1</sub>		S <sub>2</sub>		Description
	10	14	16	20	22	24	26	28			32	34	38	40	
	118	90						P.S.2					42		P.S.2 compositional laminations
	211	0						P.S.2					40		"
	222	0						P.S.2					59		"
	244	5						P.S.2					20		"
	264	0						P.S.2					75		"
	281	0						P.S.2					27		"
	300	5						P.S.2					35		"
	312	5						P.S.2					75		"
	334	5						P.S.2					55		"
	360	5						P.S.2					70		"
	311	70						P.S.2					70		"
	389	0						C.S.2			110	010	90		P.S.2 - Comp. laminations S1 - lithons - S folds
	417	0						C.S.2			55	1010	80		"
	424	5						P.S.2					62		P.S.2 - comp. laminations
	452	0						P.S.2					43		"
	471	0						P.S.2					35		"
	490	0						P.S.2					45		"
	511	2						P.S.2					110		"
	527							P.S.2					110		"
	540							P.S.2					40		"

ASSAY LOG (SAMPLER'S COPY)

Date Oct 2/99 Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
1	10	16	22	28	32	36	40
	2097	2142	37384	48	148	5A641	\$ minor, ±9
	1653	1689	---	---	---	WASTE	
	2260	2273	37385	13	141	5A641	9 minor
	2273	2310	37386	37	143	74E461	
	2310	2349	37387	39	143	94E41	6 minor
	2349	2389	37388	40	144	04E41	\$ minor Bxa
	2389	2419	37389	30	143	04E41	
	2419	2469	37390	50	149	4641	\$ minor ± BXA
	2469	2519	37391	50	150	04641	
	2519	2569	37392	50	150	04641	
	2569	2620	37393	51	150	04641	
	2620	2670	37394	50	150	04E4\$	±6, ±1 (SD1\$) 95/5%
	2670	2710	37395	40	153	84E49	
	2710	2750	37396	40	154	09E49	
	2750	2783	37397	33	153	34E4\$	
	848	863	---	---	---	WASTE	
	2832	2882	37398	50	150	04E41	BXA \$ minor, ±6
	2882	2933	37399	51	151	14E41	
	2933	2970	37400	37	153	74641	\$ minor
	2970	3010	37401	40	154	04E49	± BXA (SD1\$4) 75/25%
	3010	3059	37402	49	154	4E4\$	
	932	984	---	---	---	WASTE	
104	3229	3279	37403	50	155	04L01	\$ minor, "stringer" (4E4\$ minor) 75/25%
	3279	3320	37404	41	154	14L01	
	3320	3355	37405	35	153	34L01	
	3355	3405	37406	50	154	5A61	\$ minor (4E4\$ minor) 80/20%
	3405	3455	37407	50	153	75A61	
	3455	3505	37408	50	153	5A61	
	3505	3541	37409	36	153	65A61	
	11079	11311	---	---	---	WASTE	
1311	4302	4359	37410	53	155	34E41	(4L0) 60/40%
	11327	11409	---	---	---	WASTE	
1404	4623	4660	37411	37	153	740491	
1400	4660	4677	37412	11	155	164541	
	4677	4707	37413	30	153	04D491	
	4707	4743	37414	36	153	64D491	

CODE	FROM			TO			SAMPLE			INTR.			REC (m)			UNIT			DESCRIPTION
	10	14	16	20	22	26	28	30	32	34	36	40	42						
	1474	3	<sup>45.6</sup> 477	4	374115			31	<sup>0.9</sup> 29			410419.1	5 minor						
	1477	4	<sup>46.4</sup> 480	3	374116			29	<sup>0.9</sup> 29			410419.1							
	1480	3	<sup>47.2</sup> 485	3	374117			50	<sup>0.5</sup> 50			410411	± BXA ± 5 minor (40) 99/1%						
	1485	3	<sup>49.4</sup> 490	3	374118			50	<sup>0.5</sup> 50			"	"						
	1490	3	<sup>50.0</sup> 494	0	374119			37	<sup>1.1</sup> 37			"	"						
	1650	6	1652	2								WASTE							
<del>EOH</del>																			

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER PL

DRILLHOLE NO. 89-5-29 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 03/10 1989  
 PAGE 1 of 3



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
169		2.4		0			2		C							15	
172		1.1		0			2		C							10	
177		3.5		0.4			6		C							15	
182		2.1		0			3		C							10	
185		3.8		0			6		C							10	
187		3.2		0			6		D							3	
179		2.1		0.9			10		F							3	
189.5		0.8		0			2		C							10	
192		1.9		0			6		C							5	
176		1.7		0			2		B							10	
200		3.7		0			2		B							15	
204		3.2		0			2		B							15	
209		4.9		0			3		C							15	
212		3.1		0			2		B							15	
217		5.3		0			6		B							20	
221		3.8		0.5			6		C							7	
226		6.7		0.6			6		C							10	
231		5.5		1.1			10		D							12	
236		6.1		1.7			10		E							16	
241.5		6.1		2.5			10		E							14	
246.5		5.5		2.2			10		F							15	
252		6.1		2.8			11		F							10	
257		6.2		0.8			9		F							20	
262		5.7		1.0			9		E							10	
267		5.8		0.4			9		E							14	
277		4.6		3.8			12		F							3	
277		5.0		2.6			10		F							7	
282		5.0		0.5			6		F							4	

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. 89-G-29 COORDINATES: N \_\_\_\_\_ DATE 03/10 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 2 of 3  
 LOGGER PL INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
287		6.2		1.7			8		F							7	
297		5.0		2.7			10		F							7	
297		5.5		1.6			9		F							9	
302		4.8		3.2			10		E							6	
307		5.3		1.1			10		E							10	
312		5.0		0			6		D							1	
317		5.5		0			6		D							0	
322		4.8		0			6		D							0	
327		6.2		0			6		E							1	
332		5.1		2.2			10		E							7	
335.5		3.2		0			6		C							2	
341		4.7		0.8			6		D							2	
345		2.2		0			3		C							2	
350		3.5		0			6		D							5	
355.5		5.4		0.5			6		E							2	
360		5.9		0.9			9		F							4	
365.5		6.2		0			6		D							1	
371		5.3		0			2		C							20	
376.5		5.5		0			6		D							3	
381		2.2		0			6		C							1	
386		4.5		0			3		C							3	
391		5.3		0			3		C							30	
399		7.0		0			2		B							30	
404		4.5		0			2		B							30	
409		5.3		0			6		C							10	
414		4.7		0			2		B							15	
419		5.5		0			7		E							2	
424		4.3		0			6		D							4	

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER PL

DRILLHOLE NO. 89-6-29  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_

COORDINATES: N \_\_\_\_\_  
 E \_\_\_\_\_  
 ELEVATION \_\_\_\_\_

DATE oct 3 1989  
 PAGE    of   



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 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
429		5.7		0			7		D							3	
434		5.1		0			2		B							5	
439		5.7		0			6		C							4	
444.5		4.5		0.5			3		C							10	
449		4.5		1.0			6		C							1	
453		3.6		0			6		D							0	
458		4.0		0			2		C							1	
462		3.5		0			2		B							5	
465		3.8		2.4			10		F							8	
470		6.5		1.8			6		F							20	
475		5.9		0.9			9		F							7	
480		6.2		0			6		F							20	
484.5		5.9		0			4		F							30	
490		6.8		0			4		F							30	
495		5.0		1.1			3		F							15	
500		2.4		0			1		B							5	
502		1.6		0			1		B							2	
507		4.7		0			1		B							7	
512		5.8		0			1		B							3	
517		5.2		0			1		B							7	
522		5.0		0			1		B							4	
527		5.3		0			2		B							15	
532		5.7		0			2		B							10	
537		5.5		0			2		B							5	
542		5.9		0			2		B							5	

Fig. 1. Typical rock mechanics core log.

89-G-30

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-30

Reference Fabric Orientation Diagram:

Project: 1989 GRUM FILL-IN

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,360.056 N

5,789.94 N

592,542.950 E

2,427.58 E

Grid Co-ords: 54W / 6+00.5

Elevation: 1245.995

All symmetry determinations looking

Total Depth: 400 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° vertical

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: Test Champ zone

Reason hole Terminated: Drilled into Doal Lake Fault

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Hole Cemented: No Steel down Hole: No

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>NW</u>	<u>0</u>	<u>72</u>	<u>feet</u>
<u>NQ</u>	<u>72</u>	<u>400</u>	<u>feet</u>

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 29/89 Completed: Aug 31/89



Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
	10	14	16	20	22	24	26	28	30	34	35	Triconed O.B. No return
			71	75					1011			
			21	9								
	71	75	72	75					1012	1101A1B		Mixed O.B. ground boulders - Mostly Anvil batholith felsic intrusives
			22	1								
	72	75	103	75					1013	51A1G11		9 minor, 8 minor
			31	5								
												PS <sub>2</sub> foliated, hard, siliceous, carbonaceous, non-calcareous, w/ky dolomitic phyllite. PS <sub>2</sub> is defined by black carbonaceous + lighter qtz rich w/dol. laminations. PS <sub>2</sub> is constant although locally some lithons are observed. S <sub>2</sub> surface
												TOI - 78.5 Strongly broken - good recov. ; 78.5 - 80 rubble good recov. ; 80 - 85.0 - Rubble - missing 2ft ; 85.0 - 98.0 - No recovery ; 98.0 - EOL - mud to strongly broken. Missing 1ft between 98.0 - 102.0. Lower contact sharp. Marked by appearance of gouge fault zone. Core has f.g. subhedral as well as irregular subhedral blebs of Py associated w/ qtz/dol bands. Area between 85.0 - 98 must be fault.
	103	75	121	8					1014	51A1G1		±BXA - Fault Gouge
			37	1								
												V. soft compacted mud w/ local relict structures apparent. Locally laminations are observed + locally can see evidence of in-situ brecciation (pieces fit together).

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Core is black & very friable. T01 - 108.5 ± 1.5ft lost; 108.5 - 112.5 - 3.5 ft lost; 112.5 - 113.5 - good recov. - 113.5 - 118 - 4ft missing 118 - 120.5 - 1.5ft missing; 120.5 - E01 - Core strongly broken - med to strongly weathered - good recov. All except 120.5 - E01 are rubble or compacted med. lower contact sharp 1/S2 but compact med.
	1121	8	1130	5			1015		4L1011		(5A61 \$minor, 9minor) (4E4 ± BXA) 50/40/10 %
											1st sub-unit Fault = gouged, muddy, mass rich, chloritic, light grey w/ khaki tinge, non calcareous phyllite Although core is compacted med some relict foliation is noted. lower contact, although gouged is sharp & parallel to S2. Rock is intercalated w/ other units on a scale of several cm's to several dm's.
											2nd sub-unit - PS2 laminated black hard, non calcareous, weakly dol., w/ silty, carbonaceous, py bearing phyllite. Is similar to unit 3 - S2 planes are dark grey & smudge fingers dark grey. PS2 defined by black carbonaceous laminations & white qtz laminations w/

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>fig. euhedral Py xls // Sz. This subunit is fault gouged over 50% of interval. It is closely intercalated w the other 2 sub-units, local lithons.</p> <p>3<sup>rd</sup> sub-unit - Massive to brecciated pyritic, Sph/Gn bearing, hard, locally brecciated, non calc. massive sulphides.</p> <p>Core has local sub-angular to subrounded mm to several cm size Qtz/dol clasts, local brecciation where brassy sub-angular to angular Py clasts float in a duller brassy Py + base metal rich matrix.</p> <p>Entire interval is strongly broken + w/ky to med. fractured. Gouge zones at 101-126.8. Good recov. every where. except at 121.5-126.5 where 1.5ft is lost; Est - Pb+Zn 1-2%</p>
	113.05		113.42				1016	41A141019			<p>\$ minor (4LO) [4E49] 90/10%</p> <p>Dominant - Hard PS2 banded pyritic, Sph/Gn bearing non calcareous, weakly dolomitic massive sulphides. PS2 defined by Py rich + Sph/Gn rich bands // Sz. 5% Qtz/dol bands // Sz. Minor Cpy locally. Lenses - Lense of same gouged muddy mudst. rich light grey phyllite as in sub-unit 1, unit 105. Core is highly broken throughout + is gouged at 133.4-133.9. Good recov. Upper + lower contacts sharp + // Sz Est Pb+Zn 12-14%</p>

Code	From			To			Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34	36			
	11	3	4	2	11	5	6	4		10	7	51A16191	1 minor "stringer", (4L04 "stringer") (SB609 "stringer") 50/25/25 %	
							4	7						
													Dominant - Hard to mod soft carbonaceous, pyritic, sph/Gn bearing, locally siliceous, non calcareous phyllite. PS <sub>2</sub> defined by black carbonaceous bands + qtz, sulphide rich laminations 1 to 2 cm bands. Sulphides are predominantly Py w minor sph/Gn stringers. S <sub>2</sub> surfaces dark grey + smudges fingers dark grey. This sub-unit is intercalated w other 2 sub-units on a scale of dm's. Local lithans	
													2 <sup>nd</sup> sub-unit - PS <sub>2</sub> laminated v. soft, light khaki w green tinge, muscovite rich, w/ky chloritic, sph/Gn + Py bearing, non calcareous phyllite. S <sub>2</sub> is defined by laminations of chlorite rich + musc rich bands as well as stringers of qtz/Py, sph/Gn. This subunit is finely interlaminated w sub-unit 3 on a mm to cm scale. S <sub>2</sub> plane is white/beige - and "talcy".	
													3 <sup>rd</sup> sub-unit - PS <sub>2</sub> laminated v. soft mod grey, musc rich sph/Gn / Py stringer bearing, non calc. phyllite. S <sub>2</sub> is defined by lighter + mod. grey laminations as well as stringer qtz / sulphide + also by interlamination of sub-unit 3 S <sub>2</sub> plane is light to mod grey + smudges fingers light grey.	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>Entire interval is v. strongly broken &amp; is fault gouged at: 137.5-138.5; 145.5-146.5; 151.8-155.8. Core recov. good except at: 151.5-157.0 - 2pt lost Upper contact sharp &amp; // S2 lower contact sharp but broken Est Pb+Zn - tr- 1%</p>
	11564		11630				1018		41E14109		<p>‡ minor (5A69 "stringer") 90/10%</p>
			497								<p>Dominant - Hard, PS2 banded, pyritic, sph/Gn bearing non-calcareous, weakly dolomitic massive sulphides. PS2 is defined by Py rich &amp; sph/Gn rich bands. There are also tr. qtz &amp; carbonaceous lamination &amp; bands // S2 There are tr Cpy blebs.</p>
											<p>Lesser - Same PS2 laminated, pyritic, sph/Gn stringer qtz banded, carbonaceous, non calcareous black phyllite as previous units. Core is semi-gauge.</p>
											<p>Entire interval is med. broken except at 167.5-168.4 where phyllite is med. gouged. Core recov. good. Upper contact sharp but broken - lower contact marked by sharp increase of qtz bands.</p>
	11630		11857				1019		41A14109		<p>‡ minor (4L0) 95/5%</p>
			566								<p>Dominant - Hard PS2 banded, pyritic, sph/Gn bearing, non calc., w/ky dol. massive sulphides.</p>

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>PS2 defined by Py rich, Sph/Gn rich + 5-10% qtz bands. There are <math>\leq 4</math> cm dol. blebs over printed on the core near qtz bands. Dol. is not banded // S2  is post D2. Minor cpy blebs locally.</p> <p>Lesser - small lenses <math>\leq 10</math> cm of muscovite rich, sulphidic chloritic, khalqi, soft non calcareous phyllite. Is exactly the same rock as unit Z, sub-unit 1. Is also locally fault gouged.</p> <p>Upper contact is sharp + // S2 - Lower contact is sharp + // S2.</p> <p>Mod. broken over entire interval. Good recovery  Mod. 'fractured'; Gouged out: 164.5-165; 166.0-166.3  Est Pb+Zn 12-14 %</p>
	11857		118189						110	5A11619	
			576								<p>Hard, siliceous carbonaceous, non calcareous strongly broken Py bearing black phyllite. Core is highly broken to rubble - where visible can see lithons of Py rich bands which define PS1. 5% Py - Py is ine 'reheated' f.g. 'xals.' Possibly tr. vif. g. Sph/Gn  Core recov. good. Upper &amp; lower contacts sharp but broken.</p>
	118189		11993						111	4E141	(4L09) 80/20 %
			607								<p>Dominant - PS2 banded pyritic, Sph/Gn bearing, hard, non calcareous massive sulphides. PS2 is defined</p>

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28 30	34 35		
						by py rich & sph Gn rich bands. These bands may be mm laminations or several cm's. CAX is steep & doesn't vary much throughout interval.
						Lesser muscovite rich, weakly chloritic, v. soft well banded, locally gurgled; non calcareous phyllite. Is same muscovitic phyllite as has been encountered thus far. Has local qtz bands // S <sub>2</sub> - These bands contain v.f.g. py & possible v.f.g. sph./Gn.
						Entire interval is strongly broken & strongly fractured in local gouge zones ( $\leq 15$ cm) 701-192 - Good recov.; 192 - lost 0.5 ft. 195-E01 - good recov. Est. Pb+Zn - 10-12%
	119193	121130 649		112	51A109	(4L05) (4E4\$minor) 85/10/5%
						Dominant - PS <sub>2</sub> laminated soft, carbonaceous dark grey to black, weakly calcareous (locally) pyritic, phyllite - PS <sub>2</sub> is defined by black & dark grey & qtz/py lamination. S <sub>2</sub> surface is med- to dark grey & sanded fingers med. grey. Interlaminated in lesser unit on mm to dm scale. CAX is steep & constant.
						Sub-unit 2 - v. soft, light grey to khaki PS <sub>2</sub> laminated

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											<p>musc. rich weakly calcareous phyllite. S<sub>2</sub> is defined by light grey &amp; beige laminations as well as interlamination in dominant unit.</p> <p>Sub-unit -3 - At 203-205 there is only 0.5 ft recovered. The rubble core is the same, pyritic, hard Sph/Gn bearing weakly dolomitic massive sulphide as unit 8 dominant.</p> <p>Tool - 206 - v. strongly broken 202-203 - 0.8 ft lost; 203-205 - 2.5 ft lost.</p> <p>206 - E01 - strongly broken - good recov. Entire int. is v. weakly fractured. Upper contact sharp but broken - lower contact marked by disappearance of sub unit 2.</p>
	2130		22168						V3	51B6121	<p>±9 minor</p> <p>PS<sub>2</sub> foliated, v. soft, non calcareous, musc. rich, chloritic, dark grey w/ v. slight green tinge, carbonaceous phyllite. PS<sub>2</sub> defined by dark grey &amp; light grey laminations. S<sub>2</sub> surface is light to mod. silver grey &amp; smudged fingers light grey. Tr. Py blebs // S<sub>2</sub> lower contact gradational.</p> <p>T01 - 219 - strongly broken - 219-220 "piter chips"; 220 - E01 v. strongly broken - core recov. good.</p>

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	21216	8	21729	9			114		S1B161219	9	minor (SA69 & minor) 50/50%
			83	2							
											Both units are so closely interlaminated that they form a mixed unit. PS <sub>2</sub> laminated black & med grey soft, strongly to weakly carbonaceous, non-calc., musc. rich phyllite. PS <sub>2</sub> is defined by light & dark grey laminations or bands & qtz/dol bands w/ local Py (1-2%) S <sub>2</sub> planes are light grey silver to dark grey silver. CAX is steep & relatively constant. Qtz dol. bands mm size to several cm's, locally have increase in bands (upto 5%) Overall qtz/dol band 2-3%.
											TO1 - 242 - Strongly broken; 242-266.5 - v. strongly broken Gouge at 254.0-254.5; 261.5-266.5 gouged & 2.5ft. lost; 266.5-Eol, more broken except 268.5-269 where is gouged. Bottom contact noted by appearance of gouged qtz vein zone.
	21712	9	21912	9			115		S1B161219		Gouged & quartz flooded
			89	3							PS <sub>2</sub> laminated (where not gouged) light to med grey gouged (60-70%) v. soft, non calcareous, weakly carbonaceous, musc. rich phyllite. Where not gouged PS <sub>2</sub> is defined by med & dark grey bands & lamination & qtz bands. S <sub>2</sub> planes light silvery grey.
											TO1 - 281.5 - 70-80% qtz/anti/sid. qtz flooding w/ 2-3cm

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28 30	34 35		
						angular PsPy clasts. Where there is no qtz. rock is almost completely gouged. Qtz/carb is also gouged & highly weathered locally. 281.5- EOT 3-5% qtz/ank/sid veins - Rocks v-strongly broken & gouged over small 3-5cm intervals. 276.5-281- 1.5 ft lost. Lower contact sharp & // S2.
	29.2 9	32.1 8 981		1/16	5A16011 ±9 (4L0) (5B62	75/15/10%
						Sub-unit 1 - PS2 laminated black mod hard, mod. siliceous, carbonaceous, non calcareous Py bearing phyllite PS2 is defined by black bands & qtz bands w/ minor Py. S2 surface is dark grey & smudges fingers dark grey. Lithons noted locally
						Sub-unit 2 - light khaki & v-light green, musc. rich, w/ky chloritic, weakly calcareous v. soft phyllite. PS2 defined by beige, v-light green & pale calcareous bands as well as qtz/dol. bands. S2 plane is light beige w/ green tinge. This sub-unit is finely mm interlaminated to banded over several dm's w/ sub-unit 1.
						Sub-unit 3 - PS2 laminated dark grey w/ slight green tinge, soft w/ky carbonaceous, weakly dolomitic, phyllite. PS2 defined by light & dark grey laminations & qtz/dol

Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
												bands - S <sub>2</sub> surface is light silver grey + smudges fingers light grey TOI - 297 - v. broken - between 291 - 297 - 2.5ft is lost 297 - 302 - v. broken - 1.5ft lost; 302 - 307 - v. broken 0.8ft lost; 307 - 312 - rubble - 2.5ft. lost; 312 - EOF - v. broken good recov. lower contact sharp + // S <sub>2</sub>
	321	8	323	1					117	51B10		PS <sub>2</sub> laminated v. soft light grey w green tinge, musc. rich, chlorite rich, carbonaceous, weakly calcareous phyllite. PS <sub>2</sub> defined by light + med dark grey laminations, as well as calcareous laminations. S <sub>2</sub> planes are light silvery grey. Qtz vein at 226 - 226.9 (barren) - TOI - 326 - strongly broken; 326 - 329.6 - rubble; 329.6 - 332 - mod. broken; 332 - EOF - rubble lower contact sharp but broken
	333	1	371	5					118	51B121		PS <sub>2</sub> laminated v. soft, musc. rich, dark grey, carbonaceous, non calcareous phyllite. PS <sub>2</sub> is defined by dark grey carbonaceous bands, light grey - musc. rich bands + Qtz/dol./ant./pid. bands - S <sub>2</sub> plane is light silver grey + smudges fingers light grey. TOI - 337 - highly broken + locally gouged - 1.5ft lost 337 - 344 - v. highly broken + gouged - 1.5ft lost 341 - 345 - " " " 1ft lost 341 - 348 - v. highly broken - good recov.

Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20	22 24	26 28	30	34 35				
											348-356 v. highly broken - local gouge - 1ft lost
											356-364 - v. highly broken - good recov.
											364-501 - v. highly broken & gouged - 1.5ft lost
											Upper & lower contacts sharp but broken.
	3,711	S	3,813	6		119	51A101				9 minor
			116	9							
											Hard, black, PS2 foliated, non calcareous, carbonaceous siliceous, py bearing, phyllite. PS2 defined by qtz/Pl <sub>2</sub> bands in black cores. S <sub>2</sub> plane is dark grey to black smudges fingers dark grey. Entire interval is v. highly broken - Good recovery except over entire interval. Lower contact marked by appearance of major fault gouge.
	3,813	6	4,010	0		121	9	51A10			(SB6002) Deat fault Gouge (both) 70/30
											Dominant - Fault gouged black carbonaceous, locally calcareous, compacted muddy phyllite. Locally is not gouged & can see that it is the same rock type as unit 19.
											Lesser - Fault gouged med. grey non calcareous weakly carbonaceous, compacted muddy, phyllite.
											In both sub units relict PS2 is visible locally. Rock



Code	From		To		Feature	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		Description
	10	14	16	20			Dip	Direct.	Dip	Direct.	Dip	Direct.	
	19	19	0		P <sub>1</sub> S <sub>1</sub> Z						610		P <sub>1</sub> S <sub>2</sub> - compositional banding
	11	27	0		P <sub>1</sub> S <sub>1</sub> Z						710		"
	11	41	0		P <sub>1</sub> S <sub>1</sub> Z						611		"
	11	51	5		P <sub>1</sub> S <sub>1</sub> Z						519		"
	11	77	5		P <sub>1</sub> S <sub>1</sub> Z						712		"
	12	10	6		P <sub>1</sub> S <sub>1</sub> Z						616		"
	12	11	3	5	P <sub>1</sub> S <sub>1</sub> Z						617		"
	12	40	0		P <sub>1</sub> S <sub>1</sub> Z						610		"
	12	55	0		P <sub>1</sub> S <sub>1</sub> Z						510		"
	12	84	0		P <sub>1</sub> S <sub>1</sub> Z						412		"
	13	19	0		P <sub>1</sub> S <sub>1</sub> Z						810		"
	13	21	0		P <sub>1</sub> S <sub>1</sub> Z						713		" - At this location can also see a post D <sub>2</sub> lineament - traceable to massive comp. banding.
	13	53	0		P <sub>1</sub> S <sub>1</sub> Z						711		"
	13	61	0		P <sub>1</sub> S <sub>1</sub> Z						710		"
	13	82	0		P <sub>1</sub> S <sub>1</sub> Z						712		"

ASSAY LOG (SAMPLER'S COPY)

Date \_\_\_\_\_ Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
10	0 14 16	37 1 20	22 0 26	28 30	32 34	36/AS TE40	42
	112118	112168	37420	50	1342	14L101	(5A61 \$ minor, 9 minor) (4E4 \$ minor) 50/40/10%
	11268	113105	37421	47	138	"	"
	113105	113142	37422	57	137	41A14109	\$ minor (4L0) 90/10%
	113142	113172	37423	50	150	51A1619	1 minor string (4L0 string) (5B609 string) 50/25/25%
	11392	114142	37424	50	1549	"	"
	114142	114172	37425	50	150	"	"
	11492	115132	37426	40	138	"	"
	115132	115167	37427	32	116	"	"
	115164	116100	37428	36	1136	41E14109	\$ minor (5A69 string) 90/10%
	116100	116130	37429	30	130	"	"
	116130	116180	37430	50	150	41A14109	\$ minor (4L0) 95/5%
	116180	117130	37431	50	1549	"	"
	117130	117180	37432	50	150	"	"
	11780	118120	37433	40	1240	"	"
	118120	118157	37434	37	1136	"	"
	11857	118189	37435	32	132	51A11619	
	11889	119129	37436	40	134	4A141	(4L09) 80/20%
	119129	119169	37437	40	1240	"	"
	119169	119193	37438	24	124	"	"
	119193	20150	37439	57	133	51A1091	(4L05) (4E4 \$ minor) 85/10/5%
	20150	20190	37440	40	1240	"	"
	20190	21130	37441	40	1240	"	"
	21649	21219	---	---	---	WASTE	

END

PROJECT \_\_\_\_\_

DRILLHOLE NO. 89-6-30

COORDINATES: N \_\_\_\_\_

DATE 8/10 1989

LOCATION \_\_\_\_\_

HOLE SIZE \_\_\_\_\_

E \_\_\_\_\_

PAGE 1 of 3LOGGER P. K. Edmundo

INCLINATION \_\_\_\_\_

ELEVATION \_\_\_\_\_


**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS

VANCOUVER

CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
76.5		5.0		0			6		E							5		
78.5		2.7		0			6		E							10		
80.0		1.8		0			4		E							15		
85.0		2.9		0			4		E							10		
92.0		0		-			-		-							-		
98.0		0		-			-		-							-		
102.0		5.4		0.9			9		F							5		
103.5		1.9		0			8		F							3		
106.5		3.5		0			1		B							4		
112.5		1.5		0.8			2		B							2		
113.5		1.5		0			3		D							NA		
118.0		0.6		0			4		D							NA		
122.0		2.6		0.4			6		E							4		
126.5		3.2		2.3			11		C							5		
131.5		5.0		1.1			8		D							4		
136.5		5.6		1.0			8		E							4		
141.5		5.0		0.5			8		E							5		
146.5		5.2		0			8		D							3		
151.5		5.0		0			7		D							2		
157.0		3.4		0			3		C							NA		
157.5		0.4		0			4		E							NA		
162.5		5.9		2.0			11		F							6		
167.5		5.9		1.6			9		F							12		
172.0		5.0		0.5			9		F							10		
177.0		5.8		0.6			9		F							15		
182.0		5.0		0.5			9		F							7		
187.0		6.6		0			5		E							NA		
192.0		5.2		0			6		C							15		

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. 87-6-30 COORDINATES: N \_\_\_\_\_ DATE 8/10 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 2 of 3  
 LOGGER P. Ledwidge INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
195.0		4.8		0			5		C								NA
200		6.0		0.8			5		D								13
203.0		0.2		0			4		E								NA
205.0		0.9		0			4		E								NA
209.5		6.1		0.9			7		F								4
214.5		5.6		0.5			9		F								4
220.0		5.7		2.0			10		F								3
225.0		4.9		0			6		F								5
231.0		6.0		0			6		F								5
236.0		5.4		0			6		F								6
240		5.1		0.9			9		F								8
246.5		5.8		0			6		F								8
251.5		5.3		0			6		F								9
254.5		2.4		0			6		F								2
258.5		4.9		0			6		F								8
262.0		3.6		0.4			6		E								3
266.5		1.9		0			6		F								2
271.0		5.1		1.1			10		F								7
276.0		4.0		0			6		D								13
281.5		3.8		0			2		C								8
287.0		3.8		0.5			6		E								4
292.0		2.2		0			4		E								4
297.0		2.3		0			6		E								3
302.0		3.5		0			6		F								5
307.0		4.4		1.2			9		F								4
312.0		2.5		0			3		F								NA
317.0		5.5		1.5			8		F								8
322.0		5.5		0			7		F								7

Fig. 1. Typical rock mechanics core log.



89-G-31

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-31

Reference Fabric Orientation Diagram:

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane

Co-ords.: 6,904,381.016 N 5,788.82 N

592,563.476 E 2,456.91 E

Grid

Co-ords: 54W / 5+00 S

Elevation: 1249.074

All symmetry determinations looking

Total Depth: 329 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° vertical

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: Test Champ zone

Reason hole

Terminated: Drilled into Dead hole first

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling

Contractor: ARCTIC

Hole Cemented: No Steel down Hole: No

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>NW</u>	<u>0</u>	<u>132</u>	<u>feet</u>
<u>NQ</u>	<u>132</u>	_____	<u>feet</u>

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Aug 31/89 Completed: Sept 1/89



Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
		0	? 1133	0					1011		Triconed O.B. No Return
			40	2							
		? 1133	0	1134	0				1012		Ground mixed boulders - some are pyritic
				40	0						
		1134	0	1150	0				1013	4E.40.9	\$ minor, BxA (4L0) (5A6) 80/10/10
				45	7						
											Dominant - V. strongly broken, gouged & highly weathered over 80% of interval. Where not broken is P&S laminated, hard pyritic, sph/Gn bearing, weakly dolomitic massive sulphides. P&S is defined by lg rich, sph/Gn rich, + qtz/dol. rich bands & laminations. Locally brecciated. Minor Cpy blks.
											Sub-unit 2 - Highly weathered & gouged v. light cream v. soft & friable musc. rich non-calcareous phyllite. Can see occasional thin beige laminations of this rock in dominant rock but is mostly bands $\geq 10$ cm & very weathered.
											Sub-unit 3 - Highly weathered black friable compact med. phyllite. Is finely interlaminated & interbedded with other 2 sub units. Where fresh has dark grey silvery P&S surface.
											Upper contact rubbly - lower contact marked by disappearance of 2 subunits & better rock strength.
											Est Pb + Zn 10-12%
											Good core recovery.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	11510	0	11578	8			1017		4E14019		(4A04) 70/30 %
			481								
											Dominant - PS <sub>2</sub> laminated + banded pyritic, hard, siliceous, pyritic, Sph/Gn bearing massive sulphides. PS <sub>2</sub> defined by Pyrich, Sph/Gn rich + qtz rich bands - Bands range from mm laminations to 10-20cm bands of massive sulphides. Minor C <sub>3</sub> blebs
											Lower - PS <sub>2</sub> laminated hard siliceous, carbonaceous pyritic, Sph/Gn bearing (minor) quartzite. PS <sub>2</sub> defined by black carbonaceous, pyritic + qtz. laminations. 30-40% of core is sulphides. P <sub>3</sub> bands are parallel to foliation (S <sub>2</sub> ) but there are also secondary blebs of qtz. i.e. 2 events of sulphidization. Lower contact marked by appearance of non-carb. quartzite. Sharp contact // S <sub>2</sub>
											TOI - 153.7 - mod. broken } 153.7 - FOI - strongly broken } Good recovery Est Pb + Zn - 15-18%
	11578	8	11614	4			1015		4D14019		
			492								PS <sub>2</sub> laminated v. hard siliceous, non carbonaceous, non-carbonaceous, pyritic quartzite. PS <sub>2</sub> is defined by P <sub>3</sub> rich, qtz. rich, + Sph/Gn rich laminations.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											30-40% sulphides - tr. spy blcks. Interval is highly broken. Good recovery. Est Pb+Zn 5-8% Lower contact marked by sharp appearance of carbonaceous laminations. + is // S2
	11611	4	11715	9			1016		4A1410	9	PS2 laminated + banded, v. hard, carbonaceous, siliceous pyritic, sph/Gn bearing quartzite. Bands range from mm laminations to dm bands of Py, black carbonaceous, white qtz + sph/Gn rich bands. These define PS2. Interval is strongly broken + has many fractures // CAX. Lower contact gradual + marked by increase in qtz bands + decrease in sulphide bands. Est. Pb+Zn - 8-10%
	11715	9	11922	2			1017		4A1014		(4L0 \$ minor) 80/20 % Dominant - PS2 laminated hard siliceous predominantly black + white, carbonaceous, pyritic, weakly sph/Gn bearing non calcareous quartzite. PS2 defined by Py, carbonaceous + qtz laminations - 20-30% sulphide bands 30-40% qtz bands. Lithons + larger folds are observed throughout interval. CAX changes frequently.

Code	From		To		Recov.		No.		Unit		Description	
	10	14	16	20	22	24	26	28	30	34		35
											<p>Lesser v. soft PS2 foliated, light khaki w light green tinge, musc. rich weakly dolomitic, weakly chloritic phyllite. PS2 defined by khaki + green/khaki laminations. This sub-unit is inter laminated on mm scale or interbanded on dm scale with main unit. It is more weathered + more friable than main unit.</p>	
											<p>T01- 183.7 - mod. broken - good recov. 183.7- 186.3 - v. strongly broken - " " 186.3- EOI " " "</p>	
											<p>Est- Pb + Zn - 3-5% lower contact sharp + // S<sub>2</sub>. Noted by increase in sulphides</p>	
	119.2	2	120.6	5					108	4A14	10.9	<p>(4LO \$ minor) 95/5%</p>
			62.9									<p>Dominant- PS2 laminated hard, carbonaceous, siliceous, pyritic, sph/Gn bearing, qtzite. PS2 defined by sulphide rich, black carbonaceous + white/grey qtz laminations + bands. There also Py + Cpy veins that cross cut S<sub>2</sub> at a very steep angle. Lithons + small folds noted locally, other wise CAX is steep + constant.</p>

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Lesser - Same thaki musc. rich wlsly dolomitic, wlsly chloritic phyllite as unit 7 (lesser). Is interlaminted to interbedded on mm to cm scale.
											TOI - 196.5 - mod. broken - 0.5ft lost
											196.5 - 201.5 - v. broken 4.5ft lost
											201.5 - E01 - v. broken 2.5ft lost
											Lower contact sharp but broken
	2106.5		2218.0				1019		51B12161		9 minor, \$ minor
			69.5								PS <sub>2</sub> laminated, carbonaceous, musc. rich, non calcareous wlsly dolomitic, wlsly pyritic (trace) med- to dark grey soft phyllite. PS <sub>2</sub> defined by light grey musc. rich laminations, & dark grey carb. rich laminations - & also by qtz bands - Some qtz bands & veins // S <sub>2</sub> are dol rich. Minor pg // S <sub>2</sub> . S <sub>2</sub> plane is light silver grey & shiny - smudges fingers light silvery grey.
											214.5 - 216.0 - Several large qtz/dol vein // S <sub>2</sub> (barren) Interval mod to strongly broken & wlsly fractured. Good recovery throughout interval. Lower contact gradual.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	228	0	242	7					110	5A16109	\$ minor, ± 1
			740								PS <sub>2</sub> laminated hard to soft, black, locally siliceous, non calcareous, carbonaceous phyllite. PS <sub>2</sub> defined by black carbonaceous bands, qtz/dol bands + minor amounts of musc. rich light grey bands. Rock is hard, locally where siliceous. Qtz bands commonly define lithons + are also locally boudinaged // S <sub>2</sub> locally these contain Py (locally 2-3% of core). S <sub>2</sub> plane dark grey + smudged grey. Entire interval is med to strongly broken - Small shear zone at 234-234.5. Good core recovery. Lower contact gradual.
	242	7	275	0					111	5B2	\$ minor, ± # minor
			838								Soft PS <sub>2</sub> laminated med grey, carbonaceous, musc. rich, weakly dolomitic, locally weakly calcareous phyllite. PS <sub>2</sub> is defined by light grey musc.-rich, darker carbonaceous + white qtz/dol laminae. S <sub>2</sub> plane is med silvery grey + smudges. Fingers light to med grey. Lithons noted locally, otherwise CAX is steep + relatively constant. T01 - 260 - med. broken - good recov. 2600-2620 - Small gouge zone - 0.5 ft lost 2620-266.8 - med. broken - good recov.

Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20	22 24	26 28	30	34 35				
											266.8 - 267.5 - Small shear zone - good recov.
											267.5 - EOI - mod. broken - good recov.
											Entire interval is v. weakly fractured - fractures filled w/ qtz/dol + minor calcite.
											lower contact gradual
	12750	12811	2			112	51B1216				1 minor, ± 9 minor
			857								Mod. hard, weakly siliceous, PS <sub>2</sub> laminated dark grey to black, carbonaceous, weakly musc. rich phyllite. This unit is similar to previous unit but is more carbonaceous & slightly silicified. PS <sub>2</sub> defined by black carbonaceous, & lighter musc. rich laminations. No qtz/dol laminations. S <sub>2</sub> surface is med to dark silvery grey & smudges fingers med to dark grey. Local minor fractures filled w/ Py. (less than 1% py in core.)
											275.8 - 278.5 - v. strongly broken - Rest of interval is mod broken - Good recovery. however contact is sharp & // S <sub>2</sub>
	12811	2	12962	2		113	51B161				(5B226, minor) 60/40 %
			903								Dominant - PS <sub>2</sub> laminated light grey, musc. rich, non calcareous, very soft phyllite. PS <sub>2</sub> defined by lighter & slightly darker grey laminations as

Code	From		To		Recov.		No.		Unit			Description
	10	14	16	20	22	24	26	28	30	34	35	
												well as local qtz/dol bands + also interlamination with lesser unit S <sub>2</sub> planes are light to med. silver grey + smudge fingers med. grey.
												Lesser - Similar dark grey to black locally siliceous carbonaceous, w/ky muscovitic phyllite as unit 12. PS <sub>2</sub> defined by dark + lighter laminations as well as interlamination w/ dominant unit. Tr. Po blebs streaked // S <sub>2</sub> .
												This unit represents the transition between unit 12 + 14. Lower contact gradual + marked by disappearance of carbonaceous roots.
												281.6 - 289.0 - mud broken } Good recovery
												289.0 - 292.0 v. strongly broken }
												292.0 - EOT - Gauged + missing 0.5ft.
	219.6	2	312.1	6			114		5.1	6.14		± $\Phi$ , 2 minor
			980									PS <sub>2</sub> laminated very soft light grey to med grey, musc. rich, non calcareous, locally weakly dolomitic, weakly carbonaceous phyllite. PS <sub>2</sub> defined by light grey + darker grey laminations as well as local qtz/dol. bands. S <sub>2</sub> plane is light to med grey + smudges fingers light to med. grey.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
										<p>T01 - 299.5 - strongly broken - Good recovery                  299.5 - EOI - sheared + gouged throughout - Good recovery                  except at: 306.0 - 312.0 lost 0.5ft; 312 - 316.0 - lost                  1.5ft. At 317.5 - 318.5 have qtz vein w 3-5% Py. Broken up.                  Lower contact is sharp but gouged.                  This unit represents the beginning of the Deal fault.</p>
	321	6	329	0			115		51A161	
			100	3						<p>Deal fault - completely gouged dark grey to                  black compact mud, carbonaceous, non-calcareous                  phyllite. Powder stains fingers dark grey. Relict                  foliation still visible locally. Can note that foliation                  changes frequently from steep to 11 to 15° (AX)                  326 - 329 - 0.5ft lost - otherwise good recovery                  329.0 EOI</p>





PROJECT \_\_\_\_\_ DRILLHOLE NO. 89-G-31 COORDINATES: N \_\_\_\_\_ DATE 10/10 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 1 of 2  
 LOGGER P. Rodwidge INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
134.0		0.9		0			4		E							NA	
139.5		6.7		0			3		C							NA	
145.0		7.8		0			3		C							NA	
149.5		4.3		0			3		C							NA	
155.0		6.0		1.9			9		F							15	
160.0		6.6		0.5			6		F							30	
165.0		5.0		0			6		F							25	
170.0		5.0		0.4			6		F							25	
175.5		6.1		0.4			7		F							20	
181.0		6.0		1.3			9		F							10	
186.0		6.2		0.6			9		F							10	
191.5		6.1		0.5			7		F							13	
196.5		5.0		0.9			10		F							8	
201.5		0.5		0			4		F							NA	
206.5		2.3		0			6		F							7	
212.0		3.8		0			9		F							5	
217.0		6.4		1.1			9		F							8	
222.0		5.2		0			7		F							2	
227.0		5.5		0			7		F							0	
232.0		5.0		0.4			7		F							5	
237.0		5.0		0			6		F							2	
242.0		5.3		0			7		F							0	
247.0		5.3		0.4			7		F							1	
252.0		5.3		0.9			7		F							3	
257.0		5.5		0			7		F							0	
262.0		4.3		0			6		F							1	
267.0		5.1		0			6		F							2	
272.0		5.7		1.1			8		F							2	

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_ DRILLHOLE NO. 89-G-31 COORDINATES: N \_\_\_\_\_ DATE 10/10/ 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_ PAGE 2 of 2  
 LOGGER P.L. INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_



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**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
277.0		5.5		1.7			10		F							4		
282.0		5.5		0			8		F							6		
287.0		5.7		0			7		F							4		
292.0		5.8		0			6		E							8		
296.0		3.0		0			1		B							NA		
299.0		2.8		0			6		F							2		
302.0		3.8		0			2		C							NA		
303.9		1.5		0			1		B							NA		
306.0		3.1		0			2		C							NA		
312.0		5.4		0			2		C							NA		
316.0		2.5		0			2		C							NA		
318.5		2.8		0			2		C							NA		
322.0		3.8		0			2		C							NA		
326.0		4.3		0			1		B							NA		
329.0		2.5		0			1		B							NA		

Fig. 1. Typical rock mechanics core log.

89-G-32

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-32

Reference Fabric Orientation Diagram:

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,341.768 N

5,789.97 N

592,526.246 E

2,402.76 E

Grid Co-ords: 54W / 7S

Elevation: 1246.433

All symmetry determinations looking

Total Depth: 455 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° (vertical)

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: Test Champ zone horizon

Reason hole Terminated: Drilled into DALL LAKE FAULT

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: _____
------	-----------	----	--------------------------------

Hole Cemented: \_\_\_\_\_ Steel down Hole: \_\_\_\_\_

NW 0 42 feet

NQ 42 455 feet

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Sept 1/89 Completed: Sept 3/89

\_\_\_\_\_



Code	From				To				Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28	30	34	35			
	10	14	16	20	22	24	26	28	30	34	35			Triconard O.B. No return
				42 43 .12	0							1011		
	14	13	0	14	13	5						1012		Mixed ground boulders.
				13	3									
	14	13	5	15	10	0						1013	51A1 1019	
				15	2									
														PS <sub>2</sub> laminated black, weakly calcareous, siliceous, carbonaceous, hard weakly pyritic phyllite. PS <sub>2</sub> defined by black carbonaceous bands, & qtz/calcite/py. laminations. S <sub>2</sub> planes are dark grey & shiny & smudge fingers dark grey. T01- 47.9. Very broken & rubble; 47.9-50 - Rubbly & gouged. Can't tell recovery - no tag at start of hole. Lower contact sharp but broken.
	15	10	0	15	6	2						1014	51B2	± #
				17	1									
														Soft PS <sub>2</sub> laminated med grey, muscovite-rich, locally strongly calcareous, carbonaceous, phyllite. PS <sub>2</sub> defined by dark grey carbonaceous laminations & light grey, musc.-rich & calcareous laminations. S <sub>2</sub> planes are light to med silvery grey & smudge fingers light grey. Entire interval is rubble & v. broken except for 52.0-54.8 where it is weakly broken. CAX is steep & constant. Lower contact sharp but broken.

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
	15	6	2	18	1	4			10	5A1161	± $\phi$ minor, $\eta$ minor
				24		8					
											Hard, siliceous PS2 laminated black, weakly pyritic, carbonaceous, non-calcareous phyllite. PS2 defined by black carbonaceous bands + white thread-like qtz ± py laminations. S <sub>2</sub> planes are dark shiny grey + smudge fingers dark grey. Entire interval is v. strongly broken to rubble except at 63-63.7 where it's mod. broken. Lost 1ft from 64-69.0; lost 3.5ft from 69-74.0; lost 1.5ft from 74-77.0; lost 1.5ft from 77-EOI. At EOI have joint at 12° CAX at 180° from PS2. Have gouge zone at contact of jt. (Lower contact)
	18	1	4	9	6	0			10	5B101	(5A109, $\phi$ minor) 60/40 %
				29		3					
											Dominant- Soft PS2 laminated, calcareous, musc. rich, med. grey phyllite. PS2 defined by dark grey carbonaceous + light green calcareous laminations. S <sub>2</sub> planes are light to med. grey. + smudge fingers light grey.
											Lesser- Hard, siliceous, black, PS2 laminated, carbonaceous, weakly dolomitic, weakly pyritic phyllite. PS2 defined by black carbonaceous bands + white qtz/dol/py laminations. S <sub>2</sub> surface dark grey + shiny + smudge fingers dark grey. Most of this sub-unit is rubble or gouge.

## Lithologic Log

Date: 12/10/89 Logged By: PL

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Entire interval is gouge rubble except at 92.0-94.5 where it is med. to strongly broken. Lower contact sharp but rubbly. Local lithons. T01-87. lost 2 ft.; rest of recovery is good.
	916.0		11410.0				107	51A11019			\$minor ± # (5B2\$minor) 90/10 %
			427								Dominant - Hard, siliceous PS <sub>2</sub> laminated, carbonaceous, weakly dolomitic, locally weakly calcareous, black, weakly pyritic phyllite. PS <sub>2</sub> defined by black carbonaceous bands + white qtz ± dol ± calc. ± py laminations. S <sub>2</sub> plane is dark grey + shiny + smudges fingers black.
											Lesser (118.9-122.8) - Slightly lighter colour than dominant. Dark grey med. soft, PS <sub>2</sub> laminated, muse. rich, weakly dolomitic non calcareous, carbonaceous phyllite. PS <sub>2</sub> defined by dark grey to black carbonaceous bands + lighter grey muse. + dol. rich laminations. S <sub>2</sub> surface med-dark grey + smudges fingers light to med. grey. Local lithons
											Barren qtz vein // S <sub>2</sub> at 99.5-100.5. Entire interval is strongly broken w. small ≤ 0.5ft local rubble + minor gouge zone at; 96.0, 105.5, 109.5, 117.0, 120.0. Lost 3.5ft at 114-119.0; lost 1ft at 132.5-137.0

Code	From		To		Recov.		No.		Unit		Description	
	10	14	16	20	22	24	26	28	30	34		35
											Rest of recovery sand. lower contact is sharp & // S <sub>2</sub> - local lithons	
	114	100	115	186			108		51	62	31	
				48	3							
												Soft PS <sub>2</sub> laminated, carbonaceous, strongly calcareous, musc. rich med to dark grey phyllite. PS <sub>2</sub> defined by med to dark grey carbonaceous laminations, & white qtz/calcite laminations as well as sericite thread-like laminations - S <sub>2</sub> planes med to light grey & smudge fingers. light grey. Entire interval is med to strongly broken - core recov. good. lower contact gradual - local lithons
	115	186	117	100			109		51	110	19	± § minor
				51	8							
												Hard, siliceous, PS <sub>2</sub> laminated, carbonaceous, locally weakly dolomitic, non calcareous black phyllite. PS <sub>2</sub> defined by black bands & light grey qtz ± lg laminations. S <sub>2</sub> is dark silvery grey & smudges fingers dark grey. Entire interval is v. strongly broken to rubble w/ minor gorge except T01-159.5 & 161-162.0 which are strongly broken. 160-165.0 lost 0.8 ft; 168.5 - E01 lost 0.5 ft. lower contact gradual.

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20 22 24 26 28 30 34 35					
	117.00	119.30		110	S1B21	± \$ minor (4L01, 9minor) (5A1, 9minor) 95/4/1 %
		588				
						Dominant - P52 laminated med. grey, soft, musc. rich, non calc., locally weakly dol., carbonaceous phyllite. P52 defined by dark grey carb. laminations & light grey musc. rich laminations as well as thin qtz ± dol thread-like laminations. S2 plane is light grey & smudged fingers same colour.
						2 <sup>nd</sup> sub-unit. light bluish w green tinge, soft, weakly silicified, musc. rich, whly chloritic, whly dol., non calc. pyritic (stringers) phyllite. Is intercalated w sub-unit 3 at 0.5ft of upper contact. P52 defined by beige musc./chl. rich bands & qtz ± dol stringers & py stringers. S2 plane is white to light grey "stale" smudged fingers white.
						3 <sup>rd</sup> sub-unit - 2 Thin bands of same siliceous black phyllite as unit 9.
						T01 - 186.5 - V. strongly broken w small local gorse zones 186.5 - EOI - V. strongly broken. 172 - 177.0 - 2.5ft lost; 178.5 - 181.5 - 0.5ft lost; 181.5 - 186.5 - 0.8ft lost; Lower contact - beginning at gorse zone.

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	1193	0	1201	5			111		51B16102	Gauged, (4B04) (4L0) 75/20/5 %
			614							
										Dominant - Gauged v. soft light grey compacted mud, non calcareous, weakly carbonaceous phyllite. Crumbles to light grey powder. Is similar to previous dominant unit but is completely gauged.
										2 <sup>nd</sup> sub-unit - Hard pyritic, non calc., weakly dolomitic, weakly sph/Gn bearing massive sulphide. Can't see banding. tr-1% sph/Gn. Is located at 196.0 - 198.4 & includes 0.5 ft of 3 <sup>rd</sup> sub-unit.
										3 <sup>rd</sup> sub-unit - Gauged white v. soft compacted mud. w/ relict fol., non calc., phyllite. Is white in powder & "faley".
										Entire interval is gauged except massive sulphides. Core recov. good. Est Pb+Zn - tr-1% however contact noted by lack of gouge & is sharp. Massive sulphides do not necessarily indicate the presence of larger proximal deposit. May be just xenolith in fault zone or may indicate a truncated & displaced massive sulphide zone.
	1201	5	1236	8			112		51B12161	
			722							

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											light to med grey PS2 foliated, musc. rich, w/ly chloritic, non calcareous carbonaceous, phyllite. PS2 defined light + medium grey bands white stringer qtz laminations. S2 surface is light grey + smudges fingers light grey. Local lithons. Lower contact is sharp & // S2 TO1-E01 - V. strongly broken to rubble. Gorge zones at 233.2 - 234.0; 234.5 - 235.2. 207-212 - 2.5 ft lost; 212-215.5 - 1 ft lost; 218-220.5 0.5 ft lost; Rest has good recovery.
	236	8	244	0			113		5A10		Mod hard (can just be scratched w/ nail) PS2 foliated black - carbonaceous locally weakly calcareous phyllite. PS2 defined by dark grey & lighter grey (w/ly muscovitic) laminations as well as light qtz/± calcite stringer laminations - S2 planes dark grey & smudge fingers dark grey. Strongly broken - Good recovery. Lower contact sharp & // S2.
	244	0	281	0			114		5B26		Soft PS2 foliated, carbonaceous, musc. - rich, w/ly chloritic, med to dark grey, non-calcareous phyllite.

Code	From	To	Recov.	No.	Unit	Description
1	10	14	16	20	22 24 26 28 30	34 35
						<p>PS<sub>2</sub> defined by med &amp; dark grey laminations as well as thread-like qtz rich laminations. S<sub>2</sub> plane is light, med. grey &amp; smudges fingers light grey. Local 5-10 cm qtz/dol/ank/sid. veins // S<sub>2</sub>. Entire interval is med. broken. Locally slightly gouged in contact w/ veins. Good recov. Lower contact gradual.</p>
	121811	0	13218	5	115	5A161014 ± \$, ± # minor ± 2 (4201) 99/1
						<p>PS<sub>2</sub> laminated black &amp; dark grey, carbonaceous, locally dolomitic, locally w/aly calcitic, locally siliceous, phyllite. PS<sub>2</sub> defined by dark grey w/aly muscovitic bands &amp; black carbonaceous bands. S<sub>2</sub> plane is dark grey &amp; smudges fingers dark grey. Rock is soft where musc. rich &amp; harder where carbonaceous &amp; hard where black &amp; silicified. At 314.5-315.0 have softly deformed inclusion of light grey/beige w/aly silicified musc. rich phyllite. May not be band of this rock type due to irregular contact. Local lithon. Entire interval is med. broken &amp; has good recovery.</p>
	132185		13597	7	116	51B0191 ± 1, # minor 99/1
						Dominant - Black hard to soft, locally silicified,

Code	From		To		Recov.		No.		Unit	Description
	10	14 16	20	22 24	26 28	30	34 36			
										<p>PS2 laminated, carbonaceous, locally weakly calcitic phyllite. PS2 defined by dark grey, weakly muscovitic, bands + black carbonaceous bands as well as thin qtz ± calcite ± Py laminations. S2 planes are dark grey to black + smudge fingers black.</p> <p>Lesser: Thin ≤ 0.5cm laminations of beige soft, dolomitic, musc. rich phyllite. These are interlaminated randomly throughout interval. Lower contact sharp but gouged.</p> <p>TOI - 349.0 - mod. broken - good recov.            349.0 - 351.7 - Gouged - lost 1.5 ft.            351.7 - 353.5 - Broken qtz/dol/antl vein // S2 - good recov.            353.5 - 355.0 - Gouged - good recov.            355.0 - EOI - v. str broken, minor gouge lost 1 ft</p>
	359.7	391.5					117	5, 6, 2, 6		<p>PS2 laminated v. soft, musc. rich, non calcareous, carbonaceous, med. to dark grey phyllite. PS2 defined by med grey + dark grey laminations. S2 plane is med grey to light grey + smudges fingers light grey. Has random fractures filled w antl/sid. sub parallel to CAX.</p> <p>TOI - 366 - v. strongly broken + gouged. Good recov.</p>

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											366.0 - 382.8 - Mod. broken - Gauged at 373.0 - 374. Lost 1ft somewhere during this interval.
											- 382.8 - EOI V. strongly broken & gauged - Good recover except at 380 - 385 - lost 1ft. Lower contact sharp but gauged
	39.1	5	44.5	5			118		51B12109		
			13.5	8							
											PS2 laminated, hard, siliceous, carbonaceous, weakly calcareous, very broken to gauged, pyritic phyllite. PS2 defined by black bands & thin white qtz ± CaCO <sub>3</sub> ± Py stringer lamination. S <sub>2</sub> plane is dark grey & smudge fingers dark grey. Rock is soft where strongly broken & gauged. Mod. fractured. These are filled by qtz ± Py & have dol in vein fractures. From 438.7 to EOI have intense qtz/dol "flooding", as we approach Deal fault. Sil/dol comprises 30% of rock. Tr. Py in "flooded" area.
											T01 - 418.8 - V. strongly broken, slightly gauged locally 403.5 - 408.5 - 0.5ft lost - Elsewhere - good recover. 418.8 - 427.0. Gauged ; 416 - 421 - 1ft lost ; 421 - 426 - 3ft lost ; 426 - 429.5 - V. strongly broken, good recov. ; 429.5 - 432 - Gauged - good recover. ; 432 - 435 V. strongly broken - 1ft lost - ; 435 - 438.7 - V. strongly broken - good recover. 438.7 - EOI Strongly broken - good recover.





PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER P. Ledwidge

DRILLHOLE NO. 89-G-32 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 13/10 1989  
 PAGE 1 of 4



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
50		5.7		0			2		E							NA	
53.5		4.6		0.5			3		F							5	
59.0		5.6		1.1			6		E							NA	
64.0		4.7		0			6		F							NA	
69.0		4.1		0			3		D							NA	
74.0		1.7		0			4		D							NA	
77.0		1.4		0			4		D							NA	
82.0		1.5		0			2		C							NA	
87.0		3.5		0			1		B							NA	
92.0		4.9		0			3		D							NA	
93.5		2.0		0			6		F							2	
95.5		1.5		0			2		C							2	
96.0		0.5		0			6		E							1	
105.5		5.0		1.2			7		F							4	
109.5		5.8		0.4			10		F							5	
114.0		5.7		0			9		F							5	
119.0		1.7		0			6		F							2	
121.5		2.6		0			3		C							NA	
124.5		3.4		0			6		D							5	
129.5		5.0		1.5			7		F							10	
132.5		4.4		0.8			7		F							5	
137.0		3.6		0			7		F							8	
140.0		3.3		0			6		F							4	
145.0		5.5		0			7		E							5	
150.0		5.6		0			7		E							6	
155.0		5.4		0			8		F							1	
160.0		6.0		0			8		E							8	
165.0		4.2		0			6		E							NA	

Fig. 1. Typical rock mechanics core log.

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER P.L.

DRILLHOLE NO. 89-G-32 COORDINATES: N \_\_\_\_\_ E \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 13/10 1989  
 PAGE 3 of 4



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
281.0		5.5		0			6		F							6			
286.0		6.5		0			6		F								10		
291.0		5.0		0			6		E								6		
296.5		5.6		0			7		F								4		
302.0		5.9		0			7		F								7		
307.0		5.0		0			6		E								6		
312.0		5.3		0			6		F								8		
317.0		6.0		0			7		F								12		
322.0		5.0		0.4			7		F								10		
332.0		10.7		3.1			10		F								6		
337.0		5.5		0			7		F								1		
342.0		5.2		0.4			7		F								8		
347.0		5.8		0			6		F								7		
352.0		3.4		0			2		C								NA		
355.0		3.0		0.5			2		B								NA		
359.0		2.9		0			2		B								NA		
362		1.9		0			1		B								NA		
366		4.4		0			1		B								NA		
369.5		3.4		0			3		C								10		
374.5		5.4		0			6		D								7		
380.0		4.0		0.9			10		F								1		
385.0		4.1		0			6		D								5		
390.5		5.7		0			2		B								NA		
394.0		2.1		0			2		B								NA		
399.0		4.4		0			3		C								NA		
402.0		3.8		0			3		C								NA		
403.5		2.6		0			6		E								5		
408.5		4.3		0			3		C								NA		

Fig. 1. Typical rock mechanics core log.



89-G-33

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-33

Reference Fabric Orientation Diagram:

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,298.757 N

5,727.31 N

592,571.853 E

2,401.60 E

Grid Co-ords: 52 W / 75

Elevation: 1240.103

All symmetry determinations looking

Total Depth: 282 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90 (vertical)

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: Test Chert zone

Reason hole Terminated: Drilled into Dool Lake fault

Logged by: \_\_\_\_\_

Date(s) Logged: \_\_\_\_\_

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
------	-----------	----	------------------------------------

Hole Cemented: No Steel down Hole: No

NW 0 42 feet

NA 42 282 feet

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Sept 3/89 Completed: Sept 4/89



Code	From		To		Recov.			No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	35	
	0		?	<sup>12.16</sup> 4.1	5				1011			Triconed v.B. No return
	4.1	5		<sup>12.16</sup> 4.2	1				1012			Mixed boulders
	4.2	1		<sup>15.9</sup> 5.5	5				1013	4L0		\$ minor
												PS <sub>2</sub> laminated light khaki w green tinge or light grey (depending on weathering) v. soft musc. rich, chloritic, dolomitic, non calcareous phyllite. P <sub>12</sub> is defined by light beige/green/khaki bands + white sericite rich bands. S <sub>2</sub> surface is light beige w green tinge on weathered core + light grey on fresh lithos seen frequently T01 - SS.0 - mod. broken - good recovery SS.5 - E01 - v. strongly broken - good recovery Lower contact broken but sharp.
	5.5	5		<sup>14.3</sup> 6.3	3				1014	4E14.1.18		# minor, S minor, q minor (4L0 ± 1) 98/2 %
												Dominant PS <sub>2</sub> banded hard, siliceous, pyritic, Sph/Gn, + Mt bearing, massive sulphides. PS <sub>2</sub> defined by py rich bands + black discontinuous carbonaceous + white qtz bands. 70-80% sulphides. Qtz bands also contain calcite. There are also blebs of qtz/calcite stretched // S <sub>2</sub> . Tr. Cpy blebs Kosser - Inter laminations of beige musc. rich v. soft or

Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
														silicified phyllite. Is same phyllite as unit 3.
														TOI - 58.5 weakly broken - 58.5-E01 mod to strongly broken - core recovery good for entire interval. Lower contact is 5cm silicified lesser unit. Sharp contact w/ next unit + //S2 Est Pb+Zn - 10-12%
	63	3	72	4					105	41A	410	19		± φ minor
														Very hard siliceous PS2 banded, carbonaceous, pyritic, sph/Gn bearing, locally weakly dolomitic, non calcareous quartzite. PS2 defined by Py rich, sph/Gn rich, carbonaceous, + qtz bands. Sulphide content ~ 30-40%. Banding is at mod. steep angle to CAX + remains constant. Tr. cpy blebs. Local areas have sph/Gn bands + almost no Py in quartzite. TOI - 66.0 - strongly broken } 66.0 - E01 - weakly broken } Good recovery Est. Pb+Zn - 8-10% - lower contact sharp + //S2
	72	4	81	0					106	41E	418	16		(5D604) (4D4) (4L1) 87/5/5/3%
														Dominant - Very hard, siliceous, PS2 laminated, pyritic, sph/Gn bearing, barite bearing, magnetite bearing massive sulphides. PS2 is defined by Py/Sph/Gn, Py, Mt, Bx + silica

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											rich laminations & bands as well as interlamination w/ other 3 sub-units.
											2nd Sub-unit - v. soft chloritic, non-calcareous, mod. musc rich, light green phyllite. PS2 is defined by fine green laminations & inter laminations w/ other sub-units. Core is often very friable & broken.
											3rd Sub-unit - Hard to v. soft, muscovite rich beige, locally silicified, non calcareous, phyllite. PS2 defined by light beige & slightly darker beige laminations & interlamination w/ other sub-units.
											4th Sub-unit - white w/ red (sph/gr) laminations, siliceous, pyritic, v. hard quartzite. 30% of rock is sph/gr laminations. These & py laminations defined PS2 as well as inter laminations w/ other sub-units.
											Entire interval is mud broken except locally where phyllites are friable & weathered. Lower contact is sharp & //S2. Good recovery. Est Pb+Zn = 15-18%
	81	0	26.5 87	1			107		410	418	
											Very hard PS2 laminated sph/gr bearing, pyritic, non-calcareous, Mt bearing quartzite. PS2 defined by qtz,

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Sph/Gn/Mt, Py lamination as well as "threads" of beige soft sericite. 30-40% sulphides - Sph/Gn dominant. Well banded - CAX semi-steep + constant.
											TOT - 81.8 - weakly broken
											81.8 - 83.0 - strongly broken } Good recovery.
											83.0 - FOT - weakly broken }
											Est Pb+Zn - 10-12%
	87		<sup>32.6</sup> 1107	0				108	4E14B1		(SAG 09, minor) (4L0)/(4D4) 77/10/10/3 %
											Dominant - Hard PS2 laminated pyritic, Sph/Gn bearing, Mt bearing, non calcareous massive sulphides. PS2 defined by Py, Sph/Gn/Mt, + silica rich laminations, as well as interlamination w/ other sub-units.
											Sub-unit 2 - Black hard, siliceous, carbonaceous, locally pyritic, weakly dolomitic (porphyritic), non calcareous PS2 laminated phyllite - PS2 defined by dark carbonaceous lamination + lesser lighter laminations + local Py laminations. Rock is usually v. broken. SZ surface + blocks + smudges fingers dark grey.
											Sub-unit 3 - Very light beige w/ green tinge, v. soft, musc. rich, chloritic, non calcareous, phyllite. Is very broken up + friable. SZ surface is light cream + "falcyn" + smudges fingers white.

Code	From		To		Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35			
														Sub-unit 4 - v. hard PS2 laminated sph/Gn bearing, pyritic, non-calcareous quartzite. Is similar to unit 7 but no Mt is noted (could be due to v. small sample)
														T01 - 89.5 - med to strongly broken
														89.5 - 91.7 - v. strongly broken + local gouge
														91.7 - 99.2 - med- to strongly broken
														99.2 - 101.5 - v. strongly broken
														101.5 - EOI - Med to strongly broken
														Note: Areas where gauded or v. strongly broken are always the phyllites
														Est- Pb+Zn - 15-18%
														Lower contact sharp but broken.
														110170 2590 109 5A161014 9minor (5A6 ± 1, 9minor) (4L0 \$minor) 50/50 / trace %
														Sub-unit I - Soft PS2 laminated, dark grey, med. musc.-rich, non calcareous, weakly pyritic, phyllite. PS2 is defined by dark grey + lighter grey laminations as well as ± py rich qtz lamination. It is also defined by interlamination w other sub-units. Sz surface is med grey + smudges fingers same colour.
														Sub-unit 2 - Soft to hard, locally siliceous, black non calcareous, locally dolomitic phyllite. PS2 defined by black + dark grey + siliceous ± py laminations as well

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
												as inter laminations w sub-units. S <sub>2</sub> surface is black & smudged fingers dark grey.
												Sub-unit 3 - (214.3 - 214.5) V. soft light khaki w green tinge P <sub>S2</sub> laminated, non calcareous, mainly dolomitic, muscovite rich, chloritic phyllite. P <sub>S2</sub> defined by beige/ green laminations & gtz/dol laminations as well as interlamination w other sub-units.
												lithons are seen locally in both major units. Otherwise CAX is v. steep to shallow but relatively constant. local sheared gouge zones
												T01 - 147.6 - strongly broken - good recovery.
												147.6 - gouge - between 147.6 - 152 - 2ft. lost (Gouged & v. str. broken)
												152.0 - 154.0 - v. str. broken ; 154.0 - 161.5 - Gouged & 5% v. str. broken
												152.0 - 157.0 - 1.5ft. lost ; 161.5 - 177.5 - V. str. broken - Good recovery
												177.5 - 181.6 - Gouged, lost 0.5ft. 181.6 - 192.0, V. str. broken
												good recov. ; 192.0 - 205.5 - mod. broken - good recov. ; 205.5 - 207 -
												weakly sheared - g. recov. ; 207.0 - 226.5 - v. strongly broken - gouge
												zone at 212.0 - 212.8 - Good recov. ; 226.5 - 236.5 - V. str. broken
												local crushed areas at 226.5, 231.5, 236.0 - 236.5. Lost 1ft at
												226.5 - 231.5. ; 236.5 - 241.5. strongly broken good recov.
												241.5 - 243. Gouged - good recov. 243.0 - 244.1 - str. broken
												good recov. ; 247.1 - 251.5 - Gouged & - Missing 2ft between
												246.0 - 251.5. ; 251.5 - E01 - Gouged & v. broken - good recovery
												Lower contact noted by constant gouge zone.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	259	0	282	0				110	5A161		Minor-gauged (5A6 gauged) - Doal fault 60/40
											Both sub-units are the same 2 major sub-units
											found in previous unit but they are completely gauged or
											locally sheared into pucker chips. The black carbonaceous gase
											is weakly dolomitic & crumbles to dark grey powder. The slightly
											lighter, dark grey gase crumbles to med. grey powder.
											Core recovery is good except at 268-272.0 where
											1.5ft are lost.
											282 = 0 ft



ASSAY LOG (SAMPLER'S COPY) Date 10/10/87 Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
10	04	166.9	22-0-26	28-30	32-34	WASTE	42
	15.5	18.1	37458	40	34	4E1411	#minor, Sminor, 9minor (4LO±1) 98/2%
	15.9	19.4	37459	38	38	"	"
	16.3	20.8	37460	50	50	4A14.09	± \$minor
	16.8	22.1	37461	41	41	"	"
	17.2	23.5	37462	46	46	4E141811	(SD604)(4D4)(4L) 87/5/5/3 %
	17.7	24.7	37463	40	40	"	"
	18.1	25.8	37464	35	35	4D14181	
	18.4	26.5	37465	26	26	"	
	18.7	28.1	37466	50	50	4E14181	(SA609, \$minor)(4LO)(4D4) 77/10/10/3 %
	19.2	29.5	37467	50	50	"	"
	19.7	31.1	37468	50	50	"	"
	110.2	32.6	37469	49	49	"	"
	32.6	86.0				WASTE	

PROJECT \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 LOGGER P. L. Lidge

DRILLHOLE NO. 89-G-33 COORDINATES: N \_\_\_\_\_  
 HOLE SIZE \_\_\_\_\_ E \_\_\_\_\_  
 INCLINATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

DATE 11/11 1989  
 PAGE 1 of 2



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS	
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.		
46.0		4.6		0			7		E							7		
51.5		5.2		1.5			9		F							3		
56.5		5.1		1.6			8		E							5		
62.0		5.2		1.3			8		F							10		
66.0		4.6		0.5			7		F							9		
70.5		5.4		4.6			11		F							1		
75.0		5.1		2.2			11		F							5		
78.0		2.9		0.6			9		F							3		
82.0		5.0		0.4			7		F							4		
85.5		4.0		3.3			11		F							3		
91.0		5.6		0.7			8		F							7		
96.5		5.4		0.4			8		F							5		
101.5		5.2		0			6		F							10		
107.0		6.0		0.5			6		F							8		
112.0		5.5		0.4			7		F							2		
117.0		5.7		0			7		F							4		
122.0		5.1		0.5			7		F							6		
127.0		5.1		0			6		F							3		
132.0		5.0		0			7		F							2		
137.0		4.7		0			7		F							2		
142.0		3.8		0			7		F							5		
147.0		4.1		0.4			6		F							2		
152.0		3.0		0			6		E							6		
157.0		3.4		0			2		B							NA		
161.5		3.2		0			2		B							NA		
165.0		3.8		0			6		D							10		
169.5		4.9		0.5			5		F							5		
173.5		3.6		0.9			7		F							5		

Fig. 1. Typical rock mechanics core log.

89-G-34

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-34

Reference Fabric Orientation Diagram:

Project: GRUM - SUMMER 89

Location: GRUM DEPOSIT

Claim: \_\_\_\_\_

~~Top~~ <sup>WPM</sup> ~~Plane~~ Co-ords.: 6,904,747.298 N

6,089.59 N

592,489.927 E

2,678.83 E

Grid Co-ords: 64W / 2+25N

Elevation: 1276.603

All symmetry determinations looking

Total Depth: 300.5 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90 (VERTICAL)

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: Metallurgical Sample of Dogmatic Massive Sulfides

Reason hole Terminated: \_\_\_\_\_

Logged by: C.V. REED

Date(s) Logged: Sept 12-14, 1989

Drilling Contractor: ARCTIC

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
------	-----------	----	------------------------------------

Hole Cemented: No Steel down Hole: No

HW 0 154 feet

Assay Lab: LAKEFIELD RESEARCH

HA 154 300.5 feet

Certificate No's: \_\_\_\_\_

Started: Sept 5/89 Completed: Sept 8/89



Code	From	To	Recov.	No.	Unit	Description
1	10 14 16 20 22 24 26 28 30 34 35					
	10 0	1154 0		11	#	TRICONED - NO RECOVERY
		46 9				
	1154 0	1161 8		12	#	TILL.
		49 3				Varably sized, red-dilled 10AB & O/B quartzite fragments.
						Misc O/B mud resid. 0.8' core resid.
	1161 8	11616 7		13	15B16 4	GOUGE? [4L Gouge]
		50 8				v soft, noncalcureous, white-grey "talose" altered mass phyllite gouge. Core is rubble and gouge. 2.4' resid.
	11616 7	11619 6		14	4E114	Bra, Moderately weathered. Locally porous.
		51 7				Poorly banded, moderately hard, dark brown-grey, high grade, siliceous, semi massive, pyritic sulphide. Contains abundant suspended, subrounded, small qtz "clasts", generally < 1 cm φ. Noncalcureous. Top 1.5 feet porous, moderately weathered. Patchy orange rust on fracture surfaces. Sphalerite occurs in thin streaks and infilling thin fractures. Est % Qtz = 20% Est % Pyrite 8-9%, dominantly Zn. Core v broken, heavy O.K
	11619 6	11714 9		15	H1013	Bra (4A4 ± 9 trace) Bra (4E14) Bra.
		53 3				Highly fractured, blocky, v hard, locally moderately carbonaceous pyritic quartzite. Top 1.5 feet contains highly fractured + broken pegmatitic quartz vein. Fractures infilled with fine pyrite, lesser galena + sphalerite. Unit is poorly banded

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.	No.		Unit	Description	
	10	14	16	20		22	24			26
									<p>Banding defined by massive fine pyrite + lesser sphalerite + galena. Within sulphide bands are abundant <sup>suspended</sup> subrounded, hard white gtz "clasts". Bands range up to 15 cm thick and show ductile flow characteristics around fragmented gtz vein and 4A "clasts".</p> <p>Bottom 1.5" is highly fractured &amp; broken, sulphide brecciated calcareous quartzite clast within massive py sulphides. Clast contains thin py + gal + sph ribbons banding defining both S<sub>1</sub> and S<sub>2</sub>. Sulphides have been extensively remobilized into thin late fractures. Surrounding clast is fine grained massive py + minor sph + gal sulphides. Massive sulphides contain abundant small subrounded gtz clasts - same as unit #4.</p> <p>Est % Pb + Zn entire interval 6-8%. Abundant orange rust on fracture surfaces only, minor patchy rust on cut surface.</p> <p>Core is broken, 4.6' rec'd.</p>	
	11749		11874				16	41E	<p>± 1 ± 4 ± Bxa.</p> <p>is hard, brassy yellow, massive pyritic sulphide. Contains local diffuse bands defined by interstitial sph + gal. Bands aligned // to S<sub>2</sub>. Top 7.0' of unit highly fractured and locally brecciated. Contains local small subrounded gtz "clasts" concentrated in thin diffuse bands up to 2cm thick aligned // to S<sub>2</sub>.</p> <p>Fractures locally vuggy due to weathered calcite?</p>	

Code	From		To		Recov.		No.		Unit		Description	
	10	14	16	20	22	24	26	28	30	34		35
											Abundant patchy orange rust on fracture surfaces. Cut surface shows only slight weathering. Est Pb+Zn ranges from 2-8%. Grade increases moving down unit. Average grade 5-6%? TOI → 181.0 Core is broken due to steep fractures. 4.9' spread out rec'd. 181.0 → 183.5 Breccia + go-se. Only 0.5' rec'd. Significant fault? 183.5 → EOI moderately broken, rec'y O.K.	
	1187	4	1191	7				7	14	16	10	Slightly weathered Thick, 15a banded, med-hard, massive pyrite/massive sulphide/sulphate. Banding generally < 2cm thick, defined by variations in pyrite and barite content. Local minor sph + gal - grade likely in the 5-6% range. Local patchy orange rust on fracture surfaces. Cut surface fresh. Core moderately broken along late steep fractures. 3.9' rec'd.
	1191	7	1196	5				8	14	14	14	Bxa. High grade, highly fractured and broken massive sph + gal + py sulphide breccia. Only 1.5' rec'd. Patchy orange rust on fracture surfaces. Est Pb+Zn 18-20%. Unit is porous and friable. Largest intact piece 5cm long.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28 30	34 35		
	11916 5	11918 1 60 4		109	14D13B	± Brea. Py > Sph + Gal Banded, $\bar{v}$ hard, locally brecciated, highly fractured quartzite. Banding // to S <sub>2</sub> ranges up to 10cm thick. Banding approx 50-60% of unit volume. Sulphides extensively remobilized into abundant thin fractures. Est % Pbt Zn 8-10%. Minor patchy rust on fracture surfaces. Core in broken, 1.5' rec'd.
	11918 1	12101 1 61 3		110	14A10	Brea. $\bar{v}$ hard, high, fractured, ribbon banded, carbonaceous quartzite. S <sub>2</sub> surfaces shiny black, marks hinges. Ribbon banding high, disrupted along late fractures. Est % Py 25-30%. Est % Sph + Gal 4-5%. Abundant patchy orange rust on fracture surfaces. Core locally vuggy due to weathered carbonates in fractures. Core $\bar{v}$ broken, 3.2' rec'd.
	12101 1	12102 6 62 1		111	14E144	$\bar{v}$ high grade poorly banded sph + gal > py massive sulphide. Unit is med-hard, red-brown, locally vuggy due to weathered carbonates within fractures. Est % Pbt Zn 25%. Dominately sph. "Micro buckshot" texture. Core in broken, vuggy, gneiss. Local minor patchy orange rust on fracture surfaces.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14 16	20	22 24	26 28	30	34	35			
	121013	6	121111	7			1112		141A10	Bra	
			645								Highly fractured and broken, most hard, ribbon banded conglomeratic gtz horizon. Ribbon banding highly disrupted along late fractures - defined by fine ps + gtz. Grade poor, 3-4% PbZn. Unit same as #10. Bottom 1.4' highly brecciated and may indicate fault against lower massive pyritic sulphides. Slight patchy rust on fracture surfaces. Core V broken, 9.2' void.
	121111	7	121319	3			1113		141E14	± G minor ± Porous ± Bra minor	
			729								Thickly PS <sub>2</sub> banded, locally porous, high grade massive pyritic sulphides. Banding ranges up to 20 cm thick, defined by local concentrations of red-brown sph + galena. locally porous in thick bands due to weathering out of calcite? Unit locally brecciated in intervals up to 30 cm thick. Only local traces of visible weathering Minor breccia in thin PS <sub>2</sub> bands in bottom 2.0' of interval. Est PbZn 10-12% overall. Breccia a result of brittle deformation rather than fault related. Core V slightly broken, recovery good. Nonconformity
	121319	3	121410	3			1114		1101Q19		
			732								Highly fractured, pyromorphic gtz vein - fractured in filled w massive sph + ps. Fractures range in thickness up to 5 cm. Est PbZn 12-15% Core V broken, recovery good.

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121410	3	121418	2					1115	141E141	±6 minor ± Porous
			75	7							Same as unit # 13. Sph + Gal bands less abundant
											High grade massive pyritic sulphides. PSA banded.
											Coarse locally rubble due to steep fractures. Contains local
											large cream-white "clasts" of gtz + dol. - likely broken
											gtz veins. Est Pbr Zn 6-8%, dominantly Zn. Amorphous
											TOI → 243.7 slightly broken, very good.
											243.7 → 245.0 rubble due to abundant steep fractures
											2.0' spread out resid.
											245.0 → FOE ✓ broken, very good.
											Minor local patchy rust on cut surface - Post drilling?
	121418	2	121510	5					1116	141D14	✓ hard, sph + gal + py banded, gtzite. Bands define S <sub>2</sub>
			76	4							range up to 10 cm thick, and one 40-50% of unit
											volume. Margins of 4D are    to S <sub>2</sub> . Est % Pbr Zn
											12-15%, dominantly Sph. No visible weathering.
											(Core ✓ broken, very O.K)
	121510	5	121610	1					1117	141E14	Porous (4L0) frame
			79	3							Thinly PSA banded, medium grade, porous, massive
											pyritic sulphides. Banding defined by local concentrations
											of red-brown sph + gal. Porous due to weathered carbonate?
											TOI → 252.7 most broken, very good.
											252.7 → 255.8 rubble, 3.3' resid.
											255.8 → FOI ✓ broken, very good.
											At 259.5 is lobular, soft, white, 3 cm thick

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											alkenesi musc. platylike band.
	121610	01	121619	00			118		141014		
			82	0							High grade Py + Sph. Gnl banded, $\bar{v}$ hard, locally highly fractured gtzite. Banding ranges up to 15 cm thick, defines S <sub>2</sub> , and is 25-30% of unit volume. Silicates extensively re-mobilized into late X-cutting fractures. Est Ph <sub>2</sub> Zn 12-14%, dominantly Sph. No visible oxidation locally, slightly porous due to weathering out of carbonate in fractures. TOE → 266.0 $\bar{v}$ broken, rocky O.K. 266.0 → 267.4 rubble due to steep fracture, rocky O.K. 267.4 → EOT $\bar{v}$ broken, rocky good.
	121619	00	121715	00			119		141141		
			83	8							High grade, $\bar{v}$ hard, ribbon banded carbonaceous gtzite Ribbon banding defines S <sub>1</sub> + S <sub>2</sub> . "M" region - several phase 2 fold hinges. Banding generally < 5 cm thick, defined by Sph + Py + minor Gnl. S <sub>2</sub> surfaces dull - dark grey, - only slightly marks fingers. Est % Ph <sub>2</sub> Zn 8-12%. Dominantly Sph S <sub>1</sub> banding 25-30% of unit volume. Margins of 4A sharp, // to S <sub>2</sub> . TOE - 270.0 $\bar{v}$ broken, rocky good. 270.0 - 273.5 rubble & bxa 3.1' spread out recid. 273.5 - EOT $\bar{v}$ broken, rocky good.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	1217	150	1218	21			1210		141D	433	
											V high grade, V pyritic, hard, thickly banded quartzite. Bands locally range up to 30 cm thick, define both S <sub>1</sub> + S <sub>2</sub> . Sulphides extensively re-mobilized into late thin fractures. Locally porous due to weathering of carbonate in fractures. Qtz bands ↑ moving down interval. Est % Pb + Zn 12%, dominantly Sph. Est % Py 30-40%. Core in bottom along steep fractures, very out. No visible weathering.
	1218	21	1218	142			1211		141E	10	Minor
											Homogeneous, V hard, fine grained, massive pyritic sulphides. No grade. Minor <sup>small</sup> suspended sub-rounded white quartz clasts 1.5' of interval. Margins of 4E sharp,    to S <sub>2</sub> . Core in bottom, very good.
	1218	143	1300	5			1212		141A	43 ± 9 trace	
											High grade, ribbon banded, moderately carbonaceous, V hard, quartzite. Ribbon banding ranges up to 15 cm thick aligned    to S <sub>2</sub> . Sulphides extensively re-mobilized into late steep fractures. Thin Qtz bands + carbonaceous Pals define S <sub>1</sub> and S <sub>2</sub> . Locally waxy due to weathering of carbonate in fractures. Patchy tan-yellow oxidation coatings on fracture surfaces. Concentration of sulphide bands decreases gradually moving down interval. Overall, sulphide bands 30-35% of unit volume. Est Pb + Zn 12-15%. Dominantly Zn

CURRAGH RESOURCES INC.  
Lithologic Log

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
											Unit is only moderately carbonaceous - S <sub>2</sub> surfaces dull dark grey - only slightly mark fingers
											Traces of splachy clay in local thin fractures
											101-297.9 in broken, very good
											297.9- EoH in broken along local steep fractures, very good.
											*NOTE This hole drilled to collect massive sulphide ore types for metallurgical testing. It was drilled using HQ gauge with water only - no bit lubricants or drill oil.
											Hole shut down after drilling into lower 4A out of massive sulphides.
											EoH



ASSAY LOG (SAMPLER'S COPY)

Date SEPT 17/89 Sampled by \_\_\_\_\_

CODE	FROM	TO	SAMPLE	INTR.	REC (m)	UNIT	DESCRIPTION
1	10	16	22	28	32	36	42
	50.8 11616	51.7 11619	37063	129	127	14E14	Bxa
	11619	52.2 11729	37064	153	150	14E13	Bxa
	11749	53.9 11770	37065	121	121	14E11	± 1 ± 4
	11770	55.2 11810	37066	140	135	14E11	± 1 ± 4
	11810	56.4 11815	37067	140	130	14E11	± 1 ± 4
	11815	57.1 11817	37068	124	124	14E11	± 1 ± 4
	11817	58.4 11817	37069	143	143	14G101	
	11917	59.9 11916	37070	148	121	14E14	Bxa
	11916	60.4 11918	37071	116	116	14D13	
	11918	61.3 12011	37072	130	130	14A10	Bxa
	12011	62.1 12013	37073	125	125	14E14	
	12013	63.2 12017	37074	139	139	14A10	Bxa
	12017	64.5 12117	37075	142	141	14A10	Bxa
	12117	66.1 12117	37076	153	148	14E14	± 6 minor
	12117	67.6 12217	37077	145	145	14E14	"
	12217	69.0 12216	37078	150	149	14E14	"
	12216	70.3 12310	37079	140	140	14E14	"
	12310	71.5 12314	37080	141	141	14E14	"
	12314	72.9 12314	37081	147	147	14E14	"
	12314	73.2 12410	37082	110	110	1101019	
	12410	74.4 12414	37083	137	137	14E14	± 6
	12414	75.7 12418	37084	142	142	14E14	± 6
	12418	76.4 12510	37085	123	123	14D14	
	12510	77.7 12515	37086	145	145	14E14	
	12515	79.3 12610	37087	151	151	14E14	
	12610	80.5 12614	37088	144	144	14D14	
	12614	82.0 12619	37089	145	145	14D14	
	12619	83.8 12715	37090	160	155	14A14	
	12715	84.9 12718	37091	135	135	14A143	3
	12718	86.0 12812	37092	136	136	14D143	3
	12812	86.7 12817	37093	122	122	14ED	1 minor
	12817	88.0 12818	37094	144	144	14A14	± 9 trace
	12818	89.2 12912	37095	139	139	14A143	
	12912	90.4 12916	37096	139	139	14A143	
	12916	91.6 13010	37097	140	140	14A143	

FOI

PROJECT \_\_\_\_\_ DRILLHOLE NO. 89G-34 COORDINATES: N \_\_\_\_\_ DATE SEPT 12 1989  
 LOCATION GRUM HOLE SIZE HQ E \_\_\_\_\_ PAGE 1 of \_\_\_\_\_  
 LOGGER CVR INCLINATION -90° ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		ROD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS		
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.			
?																			
162.5	2.6																		Tailored - NO RECOVER
167.0	4.9			0				2	D										O/B rubble
172.0	5.1			2.0				11	E										
176.5	3.5			1.9				8	E										
179.5	2.0			0.4				6	E										
181.0	1.4			0.0				10	E										
186.0	2.9			0.9				11	E										
191.5	5.2			2.1				10	E										
196.5	2.1			0.0				5	E										
204.5	11.4			2.8				9	E										
208.5	2.0			0.0				4	E										
212.0	3.0			1.5				9	E										
223.5	11.8			9.5				11	F										
232.0	9.4			8.6				11	F										
237.0	5.4			4.0				11	F										
242.0	5.5			2.2				9	F										
245.0	3.8			1.0				7	F										
250.0	5.0			1.4				9	F										
255.0	5.0			0.9				7	F										
260.5	5.2			0.8				7	F										
262.0	1.2			0.4				10	F										
264.5	2.6			0.0				6	F										
267.0	3.0			0.8				8	F										
271.0	4.2			1.4				9	F										
273.5	1.9			0.0				4	F										
278.5	6.4			2.8				11	F										
281.5	4.8			1.5				11	F										

Fig. 1. Typical rock mechanics core log.



89-G-35

DIAMOND DRILL CORE LOG

Date: \_\_\_\_\_

Hole Number: 89G-35

Reference Fabric Orientation Diagram:

Project: GRUM SUMMER 89

Location: GRUM DEPOSIT

Claim: \_\_\_\_\_

Terr. Plane Co-ords.: 6,904,766.672 N

6,129.34 N

592,453.862 E

2,668.93 E

Grid Co-ords: 65W

Elevation: 1276.947

All symmetry determinations looking

Total Depth: 293.5 feet

\_\_\_\_\_ with \_\_\_\_\_ dipping

Inclination: -90° (Vertical)

\_\_\_\_\_ with dip azimuth \_\_\_\_\_.

Purpose: metallurgical sample of Diagnostic massive sulphides

Reason hole Terminated: drilled through massive sulphides into 4A

Logged by: L C PIRAGE

Date(s) Logged: Sept 11-12, 1989

Drilling Contractor: ARCTIC

Hole Cemented: No Steel down Hole: 80 feet casing YES

Size	CORE From	To	Collar Cased and Capped: <u>No</u>
<u>HW</u>	<u>0</u>	<u>167 feet</u>	
<u>HQ</u>	<u>165</u>	<u>293.5 feet</u>	

Assay Lab: \_\_\_\_\_

Certificate No's: \_\_\_\_\_

Started: Sept 8/89 Completed: Sept



Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
		100	11650	503					11	#1	TRICONED - NO RECOVERY
		11650	11870	570					12	15B16	[360] Moderately soft, PS2-foliated, noncalcareous, medium grey phyllite. Locally contains thin grey quartz siltstones. Contains crudely S2 foliaform pegmatitic white vein Qtz. S2 surfaces are silvery grey to steely grey. Overall has a very homogeneous appearance with no strong luhon development. Minor pyrite infilling late scutting fractures. Core moderately broken with good recovery.
		11870	11913.1	589					13	15B16	(5D64) 60:40 Moderately soft, PS2-foliated, noncalcareous, medium grey phyllite. Very similar to Unit # 2 (-187) described above. Contains interbands up to 40cm thick of PS2-foliated, soft, homogeneous, pale cream muscovite-quartz phyllite. S2 surfaces are pale silvery white. This phyllite contains thin quartz-pyrite veinlets parallel S1. Core moderately broken with good recovery.
		11913.1	12115.7	657					14	15B16	Moderately soft, PS2-foliated, noncalcareous, medium grey phyllite. S2 surfaces are silvery grey to steely grey. Overall a very homogeneous unit. Similar to Unit # 2 (-187). Contains crudely S2 foliaform pegmatitic white quartz veins with minor interstitial pyrite. Core moderately broken with good recovery. Contains minor grey mud gouge along late fractures.

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
	12115	7	12122	2				15	1518161	GOUGE	
				67	7					Noncalcareous, medium to pale grey, mud gouge. Contains angular fragments of white pegmatitic vein quartz. Also contains randomly oriented fragments of grey, noncalcareous, P52-foliated phyllite.	
										Core moderately broken with good recovery. Upper contact of gouge is fracture with orientation 30/025 with respect to S2. Lower contact with sulphides has orientation 35° with respect to core axis. No readily visible internal fabric.	
	12122	2	12125	0				16	141601		
				68	6					Top 0.2 feet consists of fine-grained, P52-foliated, noncalcareous pyritic sulphides. Contains numerous clasts of white, pegmatitic vein quartz and lesser black, soft, noncalcareous phyllite. Vein quartz has subangular shapes, one set of clasts forms a compositional band parallel S2.	
										Rest of unit is thinly banded, noncalcareous, baritic, pyritic sulphides. Compositional banding is on a scale of 1-10mm and marked mainly by variations in barite and pyrite. Some bands contains honey-coloured sphalerite. Pyrite content 40-50%. Estimated grade 7-9% (Pb+Zn).	
										Core moderately broken with good recovery. Core slightly porous along late, steep, cross-cutting fractures at a shallow angle to the core axis.	
	12125	0	12136	2				17	1412314	±5 [4E41 ±5] (460) minor	
				72	0					Noncalcareous, moderately hard, pyritic sulphides. Contains abundant pale grey quartz clasts floating in sulphide-rich matrix. Locally the quartz clasts have carbonaceous folia - 4A clasts in sulphide-rich matrix. Sulphides range from brassy yellow to reddish brown based on amount of sphalerite. Locally can see wispy	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	121318	3	121410	1				19			in a sphalerite-matrix. Amount of quartz increases as go down the DDH. Total sulphides 80-95%. Estimated grade 20-25% (Pb+Zn). Pyrite content 40-60%. Pyrite content also increases slightly as go down DDH. Core moderately broken with reasonable recovery.
	121410	1	121452	2				110	14E10		Hard, noncalcareous, brassy yellow, massive pyrite. Contains a few thin pale grey quartz streaks. Also contains a few wiggly streaks of reddish sphalerite. Pyrite content greater than 95%. Estimated grade 2-3% (Pb+Zn). Overall the unit has a massive, homogeneous appearance. Core very broken, dominantly along steep fractures at shallow angle to core axis. Slightly porous along the fractures, possibly because of small scale slip along the fractures. Recovery reasonable.
	121452	2	121515	2				111	14G141	8 minor (4E0 ± 4 ± Porous) 80:20	Moderately hard, noncalcareous, PSZ-foliated, thinly banded, basitic sulphides. Compositional banding on 1-3mm scale defines the SZ foliation. Fine magnetite is disseminated evenly through the basitic sulphides. Sphalerite is honey-coloured. Pyrite content 30-40%. Estimated grade 12-13% (Pb+Zn). Contains a 2-foot thick interband of pyritic sulphides. Pyritic sulphides contain a few thin wiggly, sphalerite-rich streaks defining SZ. Thin bands are also massive weathering from dissolved carbonate (?). Estimated grade only 3-4% (Pb+Zn) with 95% pyrite content. Core moderately to very broken with reasonable recovery. Some open spaces along steep fractures. Spores either dissolved carbonate (?) or indicating slight amounts of displacement.

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	1215	152	1216	125				1112	1410	141	(4G4) 80:20
				80°							Interbanded pyritic-quartzite and thinly banded basitic sulphides. Basitic sulphides range up to 40 cm in thickness. Both lithologies contain honey-coloured sphalerite disseminated in matrix. Texturally 4D consists of rounded, pale grey quartz clasts in a sulphide-rich pyrite matrix. Pyrite content about 25-30%. Estimated grade 12-14% (Pb+Zn). Pyrite has interstitial appearance with irregular pattern infilling small fractures at margins of clasts. Basitic sulphides are thinly banded. Pyrite content 40-60%. Estimated grade 12-14% (Pb+Zn). Similar to 4G units described higher up the DDH. TOI-256.6 core slightly broken with good recovery // 256.6-260.3 core very broken and rubble with reasonable recovery. Very rubble at end of this interval // 260.3-EOT moderately broken with good recovery.
	1216	125	1217	125				1113	141E	101	± # (5D4) MINOR
				83°							Moderately hard, massive, brassy yellow pyrite. Locally contains thin, wavy, discontinuous, reddish brown sphalerite-rich intervals. Locally contains angular, tan dolomite inclusions/clasts up to 2 cm across. Two 10 cm intervals consist of gouge "balls" of pale cream, soft muscovite phyllite. On edges of pyrite adjacent to these intervals can see a few bright green "frankite" streaks. In lowermost 1.5 feet of unit the P52 foliation is defined by thin, green streaks from weathered carbonate (?). Pyrite content >95%. Estimated 2-4% (Pb+Zn). Core slightly broken with reasonable recovery. Incipient breccia texture along steep fractures nearly parallel with the core axis. Locally the fractures are slightly open, possibly because of dissolved carbonate (?).

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
	1217	125	1218	122		114	141D101	± 44		
			86	0				Very hard, noncalcareous, P52-foliated, pyritic quartzite. SZ surfaces are pale quartzite grey. Quartzite is pale grey. Have interbanding of two quartzite types in ratio 20:30. Dominant unit is pale grey, moderately pyritic quartzite. Pyrite forms 1-3 cm compositional bands as well as more irregular interstitial infillings around quartzose areas. Contains honey coloured sphalerite. Pyrite content 25%. Estimated grade 9-10% (Pb+Zn). Interbanded with thin extremely sphalerite-rich quartzites. Unit is reddish brown. Sphalerite forms diffuse compositional bands parallel SZ. Sphalerite >> pyrite. Estimated grade 20-25% (Pb+Zn). Total sulphides 40-70%. In sulphide-rich intervals quartz forms rounded clasts in sulphide-rich matrix.		
								Core very broken along steep fractures. Recovery seems reasonable. Some open spaces in fractures - possibly because of weathered carbonate (?)		
	1218	122	1218	127		115	141E101	± ± ± Porous ± BRECCIA		
			86	8				Moderately hard, P52-foliated, noncalcareous, dark brassy yellow pyrite. Locally contains large white quartz ± dolomite clasts/inclusions up to 4 cm across. Locally cut surface is porous in thin compositional bands or 2-5 cm sub-rounded spots/clasts. Otherwise unit is homogeneous.		
								TOI - 283.9 very broken and rubble with good recovery. // 283.9-EOI intact with good recovery. Lowermost 0.5 feet consists of angular pyrite clasts in fine grained pyrite matrix. Pyrite-in-pyrite tectonic breccia. Lower contact gradational with increase in amount of quartzite clasts and quartz matrix in the breccia. Possible significant fault.		
								Pyrite content > 95%. Estimated grade 2-4% (Pb+Zn).		

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30 34 35				
	121814 7	121816 2 8 7 2		116	131A1	Angular sulphide and quartzite clasts in a fine grained brassy yellow to black matrix. Matrix includes pyrite, sphalerite, carbonaceous phyllite. S2 fabrics on clasts are randomly oriented. Unit is "coherent" fault rock. Contains significant Pb+Zn grade = 10%. Proportion of sulphide clasts decreases as go down the DDH. Grade also decreases since matrix is dominantly carbonaceous "mud gauge". Core slightly broken with good recovery.
	121816 2	121913 5 8 9 5		117	141A1 ± 3	Very hard, noncalcareous, dark grey, ribbon-banded, pyritic quartzite. Ribbon banding consists of pale white quartz bands with disseminated pyrite. Banding generally on a scale of 1cm or less. Proportion of ribbon banding about 50%. Uppermost portions of unit contains at least one 10-15 cm thick band of brassy yellow pyrite with about 20-30% interstitial grey quartz. Overall pyrite content about 10-15%. Estimated grade 1-3% (Pb+Zn). S2 surfaces are flat black and slightly mark the fingers. Core very broken and rubble. Core extensively spread out in box so difficult to estimate recovery. Broken on both S2 and steep fractures.
						E OH





PROJECT \_\_\_\_\_ DRILLHOLE NO. 896-35 COORDINATES: N \_\_\_\_\_ DATE Sept 12 1989  
 LOCATION \_\_\_\_\_ HOLE SIZE NQ E \_\_\_\_\_ PAGE 1 of 2  
 LOGGER LCF INCLINATION -90° ELEVATION \_\_\_\_\_



**PITEAU & ASSOCIATES**  
 GEOTECHNICAL CONSULTANTS  
 VANCOUVER CALGARY

**GEOTECHNICAL CORE LOG**

FEET

DEPTH (TO)	LENGTH OF RUN	CORE RECOVERY		RQD		HARDNESS	DEGREE OF BREAKAGE		DEGREE OF WEATHERING	ROCK TYPE	BEDDING DIP		BEDDING JOINTS		CROSS JOINTS		COMMENTS
		LENGTH	%	LENGTH	%		CATEGORY	NO.			DEPTH	ANGLE	NO.	FREQ.	NO.	FREQ.	
165		0		0			—		—								TRICONED - No recovery
168.5		4.3		0.5			7		F							3	
172		3.1		0.4			8		F							2	
177		5.3		0.8			8		F							2	
182		5.0		1.5			10		F							1	
187		5.4		1.8			10		F							4	
192		5.5		1.6			8		F							6	
197		5.5		3.0			12		F							2	
201.5		4.0		1.1			8		F							3	
206.5		5.5		1.1			10		F							4	
211.5		4.5		2.1			11		F							3	
216.5		5.7		1.6			9		F							7	
222		5.5		0			2		F							3	
227		7.0	140%	1.0			7		E							6	
232		5.0	100	1.6			9		E							3	
235.5		2.5	100	0			6		E							1	
239.5		4.9	123%	0.8			7		E							5	
244.5		4.8	96%	0.6			6		E							8	
249.5		6.0	128%	1.2			7		F							4	
254.5		3.3	66%	1.4			9		E							3	
259.5		6.0	120%	2.0			11		E							5	
264.5		4.5	90%	1.3			10		E							5	
269.5		5.5	110%	4.1			13		E							1	
275		6.0	109%	2.4			11		E							6	
277.5		2.7	108%	0			6		F							3	
281		4.4	126%	0.4			6		E							5	
286.5		6.0	109%	1.7			12		E							4	
289		5.5	220%	0			7		F							4	

Fig. 1. Typical rock mechanics core log.

